FINANCIAL SECTION

TABLE OF CONTENTS

FINANCIAL OVERVIEW

GENERAL

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

OVERVIEW

Canon is one of the world's leading manufacturers of plain paper copying machines, office multifunction devices ("MFDs"), laser printers, cameras, inkjet printers, medical equipment, semiconductor lithography equipment and FPD (Flat panel display) 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 2017, the U.S. economy continued to grow steadily as employment conditions and corporate earnings improved. In Europe, the economy remained stable as unemployment rates decreased and capital investment increased due to strong exports. The Chinese economy rallied due to public investments while the economies of emerging countries realized moderate recovery as the economies of Russia and Brazil bottomed out owing to the rising price of natural resources. In Japan, corporate earnings improved and consumer spending showed signs of recovery. As a result, the global economy overall continued to recover more robustly than was expected at the beginning of the year.

Market environment

As for the markets in which Canon operates amid these conditions, demand for office multifunction devices ("MFDs") and laser printers remained at around the same level as the previous year. While demand for cameras shrank moderately, demand for inkjet printers increased from the previous year with the economies recovering in emerging countries. Additionally, there was solid demand for medical equipment, mainly outside of Japan. Within the Industry and Others sector, demand for FPD (Flat panel display) lithography equipment and manufacturing equipment for organic LED ("OLED") panels enjoyed strong growth and the demand for network camera also enjoyed solid growth.

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.

Summary of operations

During 2017, unit sales of office MFDs increased compared with the previous year due to the expanded sales of color models. Additionally, unit sales of laser printers increased compared with the previous year, supported by the steady sales of newly launched models, as demand recovered in emerging countries. While unit sales of interchangeable-lens digital cameras decreased compared with the previous year, unit sales of digital compact cameras remained at around the same level amid the shrinking market, owing to increased sales of high-value-added models. Looking at inkjet printers, unit sales increased compared with the previous year, thanks to such factors as strong sales of newly launched home-use models and refillable ink tank models for emerging countries. Additionally, sales of semiconductor lithography equipment, FPD lithography equipment, and manufacturing equipment for OLED panels exceeded those of the previous year, thanks to favorable market conditions, and sales of network cameras increased steadily in response to the growing market. Under these conditions, along with the impact of acquiring TMSC, net sales for the year increased by 19.9% year on year to ¥4,080,015 million. Although the gross profit ratio decreased by 0.4 points to 48.8% due to the effect of the product mix, gross profit increased by 19.0% year on year to ¥1,992,691 million, thanks to such factors as the increase in sales and continuous cost reduction efforts. Operating expenses increased by 15.0% year on year, mainly due to impairment loss on goodwill of commercial printing business in Office Business Unit and the impact of acquiring TMSC. As a result, operating profit increased by 44.8% to ¥331,479 million. Other income (deductions) increased by ¥6,620 million mainly due to gain on securities contributed to retirement benefit trust and foreign currency exchange losses while income before income taxes increased by 44.6% year on year to ¥353,884 million and net income attributable to Canon Inc. increased by 60.6% to ¥241,923 million.

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 on page 35.

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) 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.

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.

KEY PERFORMANCE INDICATORS

	2017	2016	2015	2014	2013
Net sales (Millions of yen)	**4,080,015**	3,401,487	3,800,271	3,727,252	3,731,380
Gross profit to net sales ratio	**48.8%**	49.2%	50.9%	49.9%	48.2%
R&D expense to net sales ratio	**8.1%**	8.9%	8.6%	8.3%	8.2%
Operating profit to net sales ratio	**8.1%**	6.7%	9.3%	9.8%	9.0%
Inventory turnover measured in days	**49 days**	59 days	47 days	50 days	52 days
Debt to total assets ratio	**10.2%**	11.9%	0.0%	0.0%	0.1%
Canon Inc. shareholders' equity to total assets ratio	**55.2%**	54.2%	67.0%	66.8%	68.6%

Note: 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 TMSC on December 19, 2016. If this factor were excluded, the inventory turnover would show 50 days.

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, equipment, supplies, and related services under separate contractual arrangements. Canon recognizes revenue when persuasive evidence of an arrangement exists, delivery has occurred and title and risk of loss have been transferred to the customer or services have been rendered, the sales price is fixed or determinable, and collectibility is probable.

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 title and risk of loss transfer to the customer.

Canon also offers separately priced product maintenance contracts for most office products, for which the customer typically pays a stated base service fee plus a variable amount based on usage. Revenue from these service maintenance contracts is measured at the stated amount of the contract and recognized as services are provided and variable amounts are earned.

Revenue from the sale of equipment under sales-type leases is recognized at the inception of the lease. 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 equipment leases are bundled with product maintenance contracts, revenue is allocated based upon the estimated relative fair value of the lease and non-lease deliverables. Lease deliverables generally include equipment, financing and executory costs, while non-lease deliverables generally consist of product maintenance contracts and supplies.

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 computed tomography and magnetic resonance imaging, is recognized when the equipment is installed at the customer site and the specific criteria of the equipment functionality are successfully tested. Service revenue is derived primarily from separately priced product maintenance contracts on the equipment sold to customers and is measured at the stated amount of the contract and recognized as services are provided.

For all other arrangements with multiple elements, Canon allocates revenue to each element based on its relative selling price if such element meets the criteria for treatment as a separate unit of accounting. Otherwise, revenue is deferred until the undelivered elements are fulfilled and accounted for as a single unit of accounting.

Canon records estimated reductions to sales at the time of sale for sales incentive programs including product discounts, customer promotions and volume-based rebates. Estimated reductions to sales are based upon historical trends and other known factors at the time of sale. In addition, Canon provides price protection to certain resellers of its products, and records reductions to sales for the estimated impact of price protection obligations when announced.

Estimated product warranty costs are recorded at the time revenue is recognized and are included in selling, general and administrative expenses. Estimates for accrued product warranty costs are 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.

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.

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 2017 and recognized an impairment charge for the commercial printing business included in Office Business Unit for the amount by which the carrying amount exceeded the reporting unit's fair value. For further information, please refer to Notes 8 and 20 of the Notes to Consolidated Financial Statements. The fair values of remaining reporting units exceeded its respective carrying amount, and thus no other impairment charges were recognized as a result of 2017 impairment test. However, since goodwill attributed to Medical System Business Unit and network camera business included in Industry and Others Business Unit were resulted from recent acquisitions, fair values in excess of reported carrying values as a percentage are relatively low. As a result, a future reduction more than expected in cash flows of the related business, could trigger an impairment. The goodwill related to these reporting units are ¥499,915 million and ¥235,172 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 6 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 2017, Canon estimated a weighted-average discount rate used to determine benefit obligations of 0.6% for Japanese plans and 2.2% for foreign plans and a weighted-average expected long-term rate of return on plan assets of 3.1% for Japanese plans and 4.2% 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 2017, a decrease of 50 basis points in the discount rate increases the projected benefit obligation by approximately ¥101,964 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 2017, a change of 50 basis points in the expected long-term rate of return on plan assets would cause a change of approximately ¥4,948 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

SUMMARY OF OPERATIONS

	Millions of yen				
	2017	change	2016	change	2015
Net sales	**4,080,015**	**+19.9%**	3,401,487	-10.5%	3,800,271
Operating profit	**331,479**	**+44.8%**	228,866	-35.6%	355,210
Income before income taxes	**353,884**	**+44.6%**	244,651	-29.6%	347,438
Net income attributable to Canon Inc.	**241,923**	**+60.6%**	150,650	-31.6%	220,209

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 models and high-value-added models, along with the impact of acquiring TMSC, Canon's consolidated net sales in 2017 totaled ¥4,080,015 million, an increase of 19.9% from the previous year.

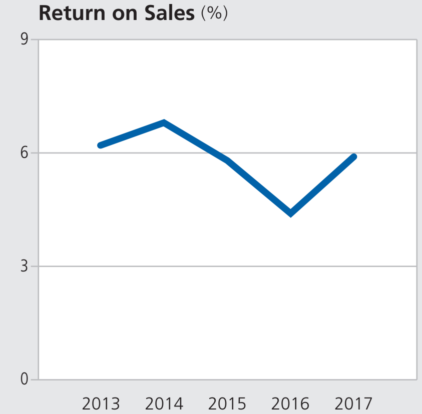
Overseas operations are significant to Canon's operating results and generated 78.3% of total net sales in 2017. Such sales are denominated in the applicable local currency and are subject to fluctuations in the value of the yen relative to those currencies. Despite efforts to reduce the impact of currency 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

Return on Sales (%)



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 19.0% to ¥1,992,691 million from 2016. The gross profit ratio also 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 15.0% year on year to ¥1,661,212 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 TMSC, and the impact of recognizing impairment losses on goodwill.

Operating profit

Operating profit in 2017 increased 44.8% from 2016 to a total of ¥331,479 million. The ratio of operating profit to net sales increased 1.4 points to 8.1% from 2016.

Other income (deductions)

Other income (deductions) for 2017 was ¥22,405 million, an increase of ¥6,620 million from 2016 mainly due to gain on securities contributed to retirement benefit trust which was partially offset by foreign currency exchange losses.

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.

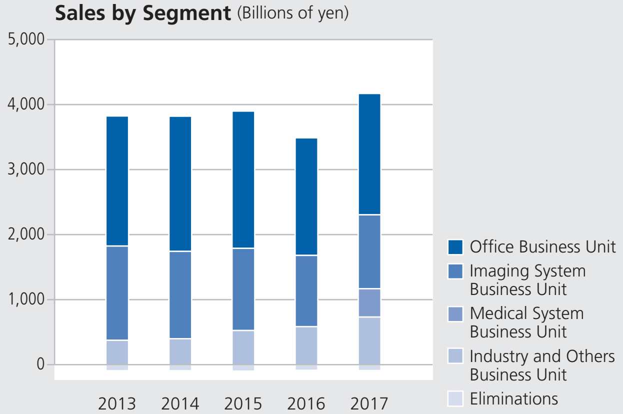
The Office Business Unit mainly includes Office multifunction devices (MFDs) / Laser multifunction printers (MFPs) / Laser printers / Digital production printing systems / High speed continuous feed printers / Wide-format printers / Document solutions

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 / Calculators

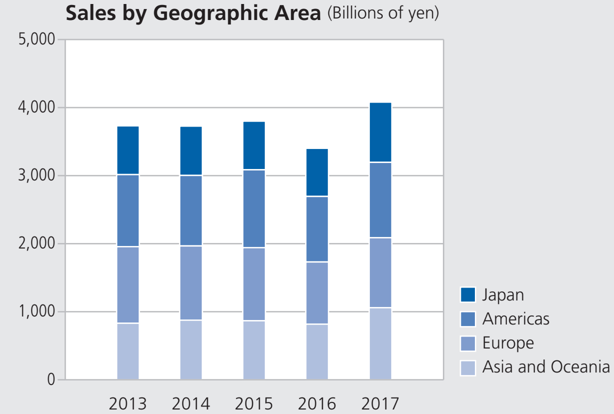
The Medical System Business Unit mainly includes Digital radiography systems / Diagnostic X-ray systems / Computed tomography / Magnetic resonance imaging / Diagnostic ultrasound systems / Clinical chemistry analyzers / Ophthalmic equipment

The Industry and Others Business Unit mainly includes 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

Sales by Segment (Billions of yen)



Sales by Geographic Area (Billions of yen)



Sales by segment

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 strengthen the product lineup such as the newly launched color A3 (12”x18”) imageRUNNER ADVANCE C3500 series for small- and medium-size offices. Among high-speed continuous-feed printers, unit sales of the Océ-produced VarioPrint i300, a high-speed sheet-fed 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 ¥1,865,928 million, a year-on-year increase of 3.2%, while operating profit totaled ¥180,648 million, a year-on-year increase of 6.6%.

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 operating profit totaled ¥175,913 million, a year-on-year increase of 21.8%.

Within the Medical System Business Unit, TMSC’s computed tomography (“CT”) 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 operating profit 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 25.2% year on year to ¥731,704 million, while operating profit grew by ¥49,340

SALES BY SEGMENT

	Millions of yen				
	2017	change	2016	change	2015
Office	**1,865,928**	**+3.2%**	1,807,819	-14.4%	2,110,816
Imaging System	**1,136,188**	**+3.7%**	1,095,289	-13.3%	1,263,835
Medical System	**436,187**	**—**	—	—	—
Industry and Others	**731,704**	**+25.2%**	584,660	+11.4%	524,651
Eliminations	**(89,992)**	**—**	(86,281)	—	(99,031)
Total	**4,080,015**	**+19.9%**	3,401,487	-10.5%	3,800,271

SALES BY REGION

	Millions of yen				
	2017	change	2016	change	2015
Japan	**884,828**	**+25.2%**	706,979	-1.0%	714,280
Americas	**1,107,515**	**+14.9%**	963,544	-15.8%	1,144,422
Europe	**1,028,415**	**+12.6%**	913,523	-15.0%	1,074,366
Asia and Oceania	**1,059,257**	**+29.6%**	817,441	-5.7%	867,203
Total	**4,080,015**	**+19.9%**	3,401,487	-10.5%	3,800,271

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

million from the previous year to ¥56,788 million.

Intersegment sales of ¥89,992 million, representing 2.2% of total sales, 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 21 of the Notes to Consolidated Financial Statements.

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

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

In Europe, net sales increased 12.6% from the previous year due to the impact of acquiring TMSC, 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 TMSC and strong sales of manufacturing equipment for OLED displays which is sold by Canon Tokki and manufacturing equipment for FPD (Flat panel display).

Operating profit by segment

Please refer to the table of segment information in Note 21 of the Notes to Consolidated Financial Statements.

Operating profit for the Office Business Unit in 2017 increased by 6.6% from the previous year to ¥180,648 million, owing to the positive effects of favorable currency exchange rates.

Operating profit 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.

Operating profit for the Medical System Business Unit, which was newly established from this year, was ¥22,505 million in 2017.

Operating profit for the Industry and Others Business Unit in 2017 grew by ¥49,340 million to ¥56,788 million thanks to strong sales of manufacturing equipment for OLED displays 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.

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 21 of the Notes to Consolidated Financial Statements.

LIQUIDITY AND CAPITAL RESOURCES

Cash and cash equivalents increased by ¥91,621 million to ¥721,814 million in fiscal 2017 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 increased by ¥90,274 million to ¥590,557 million in fiscal 2017 compared to the previous year thanks to the increase in net income. 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 2017, cash inflow from cash received from customers increased thanks to sales growth. There were no significant changes in Canon’s collection rates. Cash outflow for payments for parts and materials, selling, general and administrative expenses and R&D expenses increased mainly due to sales growth. Cash outflow for payments for income taxes decreased thanks to a decrease in taxable income in fiscal 2016.

Net cash used in investing activities decreased by ¥672,115 million to ¥165,010 million in fiscal 2017. This mainly reflects the acquisition of TMSC in fiscal 2016.

Canon defines “free cash flow” as cash flows from operating activities less cash flows from investing activities. For fiscal 2017, free cash flow increased by ¥762,389 million to positive ¥425,547 million as compared with negative ¥336,842 million for fiscal 2016.

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 provided in financing activities totaled negative ¥340,464 million in fiscal 2017, mainly resulting from the dividend payout of ¥162,887 million, the repayment for long-term loans of ¥126,578 million and the acquisition of own shares in ¥50,036 million. The Company paid dividends in fiscal 2017 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) increased to ¥39,328 million at December 31, 2017 compared with ¥1,850 million at December 31, 2016, which was mainly due to a new consolidation of subsidiary. Long-term debt (excluding the current portion) amounted to ¥493,238 million at December 31, 2017 compared with ¥611,289 million at December 31, 2016 thanks to the repayment for long-term loans.

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 March 9, 2018, 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.

Reflecting the foregoing circumstances, Canon's total inventory turnover ratios were 49, 59, and 47 days at the end of the fiscal years 2017, 2016, and 2015, respectively. The increase of inventory turnover in 2016 was primarily due to the acquisition of TMSC 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 2017 amounted to ¥147,542 million compared with ¥171,597 million in 2016 and ¥195,120 million in 2015. For 2018, Canon projects its increase in property, plant and equipment will be approximately ¥200,000 million.

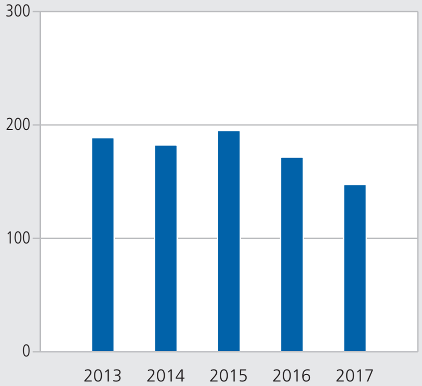
Employer contributions to Canon's worldwide defined benefit pension plans were ¥50,628 million in 2017, ¥14,575 million in 2016 and ¥19,565 million in 2015. Employer contributions to Canon's worldwide defined contribution pension plans were ¥18,979 million in 2017, ¥17,603 million in 2016, and ¥17,277 million in 2015. In addition, employer contributions to the multiemployer pension plan of certain subsidiaries were ¥4,165 million in 2017, ¥3,482 million in 2016 and ¥3,864 million in 2015.

Working capital in 2017 increased by ¥6,790 million to ¥1,123,169 million, compared with ¥1,116,379 million in 2016 and ¥1,241,850 million in 2015. 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 2017 was 2.01 compared to 2.14 for 2016 and to 2.52 for 2015.

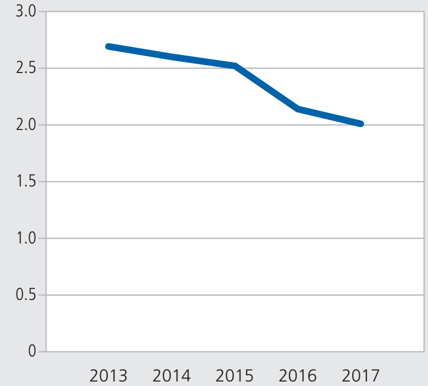
Return on assets (net income attributable to Canon Inc. divided by the average of total assets) was 4.7% in 2017, compared to 3.1% in 2016 and 5.0% in 2015.

Return on Canon Inc. shareholders' equity (net income attributable to Canon Inc. divided by the average of total Canon Inc. shareholders' equity) was 8.6% in 2017 compared with 5.2% in 2016 and 7.4% in 2015.

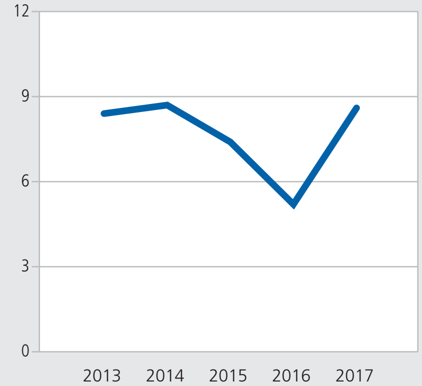
Increase in Property, Plant and Equipment (Billions of yen)



Working Capital Ratio



Return on Canon Inc. Shareholders' Equity (%)



The debt to total assets ratios were 10.2%, 11.9% and 0.0% as of December 31, 2017, 2016 and 2015, respectively. Canon had short-term loans and long-term debt of ¥532,566 million as of December 31, 2017, ¥613,139 million as of December 31, 2016 and ¥1,569 million as of December 31, 2015.

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 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

	Millions of yen	
	2017	2016
Net cash provided by operating activities	**590,557**	500,283
Net cash used in investing activities	**(165,010)**	(837,125)
Free cash flow	**425,547**	(336,842)

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 ¥6,059 million at December 31, 2017. The carrying amounts of the liabilities recognized for Canon's obligations as a guarantor under those guarantees at December 31, 2017 were not significant.

CONTRACTUAL OBLIGATIONS AND COMMERCIAL COMMITMENTS

The following summarizes Canon's contractual obligations at December 31, 2017.

		Payments due by period			
Millions of yen	**Total**	Less than 1 year	1-3 years	3-5 years	More than 5 years
Contractual obiligations:					
Long-term debt:					
Loan from the banks	**490,000**	—	—	490,000	—
Other debt	**9,168**	5,930	2,776	390	72
Operating lease obligations	**111,502**	28,414	37,622	22,495	22,971
Purchase commitments for:					
Property, plant and equipment	**36,199**	36,199	—	—	—
Parts and raw materials	**135,649**	135,649	—	—	—
Other long-term liabilities:					
Contribution to defined benefit pension plans	**36,750**	36,750	—	—	—
Total	**819,268**	242,942	40,398	512,885	23,043

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, 2017 accrued product warranty costs amounted to ¥17,452 million.

At December 31, 2017, commitments outstanding for the purchase of property, plant and equipment were approximately ¥36,199 million, and commitments outstanding for the purchase of parts and raw materials were approximately ¥135,649 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 2018, Canon expects to contribute ¥14,447 million to its Japanese defined benefit pension plans and ¥22,303 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.

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.

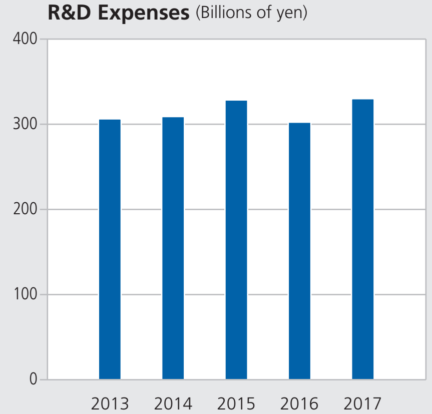
In the "ImPACT" (Impulsing Paradigm Change through Disruptive Technologies) program led by the Japanese government, Canon's "Innovative Visualization Technology to Lead to Creation of a New Growth Industry" was selected as one of the R&D programs in the year 2014, and we are aiming to develop medical inspection equipment with the physically-noninvasive and -nondestructive imaging technology. Additionally, Canon is currently working on collaborative research with Massachusetts General Hospital ("MGH") and Brigham and Women's Hospital ("BWH") to develop biomedical optical imaging and medical robotics technologies at the Healthcare Optics Research Laboratory in Cambridge, Massachusetts, founded in 2013. Also, TMSC and the University of Bordeaux has started a joint research on ultra-high-resolution MRI technologies.

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's consolidated R&D expenses were ¥330,053 million in 2017, ¥302,376 million in 2016 and ¥328,500 million in 2015. The ratios of R&D expenses to the consolidated total net sales for 2017, 2016 and 2015 were 8.1%, 8.9% and 8.6%, respectively.

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

R&D Expenses (Billions of yen)



standards in the market and industry.

Canon obtained the third greatest number of private sector patents in 2017, according to the United States patent annual list, released by IFI CLAIMS® Patent Services.

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, all of which were classified as available-for-sale securities, were as follows at December 31, 2017.

	Millions of yen	
Available-for-sale securities	Cost	Fair value
Debt securities		
Due within one year	1,222	1,222
Due after one year through five years	605	605
Due after five years	340	506
Fund trusts	122	124
Equity securities	10,965	20,901
	13,254	23,358

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, 2017. All of the foreign exchange contracts described in the following table have a contractual maturity date in 2018.

Millions of yen	U.S.$	Euro	Others	Total
Forwards to sell foreign currencies:				
Contract amounts	119,128	127,449	25,986	272,563
Estimated fair value	61	(1,720)	(426)	(2,085)
Forwards to buy foreign currencies:				
Contract amounts	38,775	2,399	4,994	46,168
Estimated fair value	(448)	(187)	5	(630)

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.

The amount of the hedging ineffectiveness was not material for the years ended December 31, 2017, 2016 and 2015. The amounts of net losses excluded from the assessment of hedge effectiveness (time value component) which was recorded in other income (deductions) were ¥332 million, ¥311 million and ¥131 million for the years ended December 31, 2017, 2016 and 2015, 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.

LOOKING FORWARD

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.

Despite the growing concerns about geopolitical risks, the world economy is expected to continue achieving moderate growth in 2018.

In the businesses in which Canon is involved, for office MFDs, demand for color models is expected to grow moderately and make up for the contraction of the market for monochrome models, leading to the same level of demand overall compared with the previous year. Looking at the laser printer market, although the demand in developed countries is expected to decrease, demand in emerging countries continues to recover, resulting in overall demand remaining at the same level as the previous year. For interchangeable-lens digital cameras, demand is expected to decrease moderately. Projections for digital compact cameras indicate continued market contraction, centered mainly on low-priced models, despite solid demand for high-value-added models. With regard to inkjet printers, demand is expected to continue to exceed that of the previous year. As for the medical equipment market, demand is expected to remain firm in response to replacement demand for medical equipment in developed countries, increasing medical needs associated with population growth in emerging countries and changes in the prevalence of diseases. Looking at industrial equipment, within the semiconductor lithography equipment segment, the market is expected to enjoy healthy growth due to the increase in demand for memory devices used in data centers and mobile devices. The outlook for FPD lithography equipment and OLED panel manufacturing equipment points to continued active capital investment by panel manufacturers, which is expected to increase demand. The network camera market is also expected to grow in response to the increasing use of network cameras for diverse applications in such areas as marketing support in addition to disaster monitoring and crime prevention applications.

Amid these conditions, 2018 marks the year of accelerated progress toward the target "to achieve net sales of 5.0 trillion yen" under Phase V (2016 - 2020) of "Excellent Global Corporation Plan" with the new business portfolio including the four new business areas (commercial printing, network cameras, healthcare, and industrial equipment), and will work to address the following key challenges under the theme of "Pursue total optimization and prioritize profits to complete our grand strategic transformation." Canon will once again return to the slogans of "total optimization" and "focus on profit," which Canon have upheld since 1996, and review everything from scratch based on them aiming to raise the level of the overall management one step higher.

Strengthen capability to research leading-edge technology
Strengthen research and analysis functions that contribute to the expansion of strategic initiatives that response to changing times and rapid and constant innovation. Comprehensively strengthen capability to research not only global leading-edge technology, but also political, economic, industrial, social and other areas.

Strengthen product development capability
Focus resources in areas that hold future promise, promoting even more strictly the selection and concentration of development themes. Efficiently accelerate technological development through collaboration and the use of external research institutes, and start-up enterprises. Further improve quality, cost, and delivery, promoting such initiatives as elimination of prototypes by improving simulation technology, optimal designs for robot assembly, and the sharing of product platforms. Enhance software development capability and work to obtain the optimal balance between outsourcing and in-house production.

Comprehensively strengthen manufacturing prowess
Accelerate reduction in the production cost ratio of new businesses. Establish an advanced and efficient production system that brings together, development, production engineering, and manufacturing, and strongly promote the expansion of this via the "mother factory" concept. Thoroughly pursue cost reduction, expanding the in-house production of production equipment and parts that are shared among various products in addition to key components. Construct a globally optimized manufacturing system, which enables monitoring of costs in real time by country and region. Eradicate waste in product development stage, having product development and quality organizations work in unison.

Comprehensively strengthen strategic procurement function
Further strengthen and accelerate cooperation with worldwide suppliers in the global procurement network developed so far. Promote in-house production of parts and materials and realize cost reduction by promoting standardization of parts and adoption of general-purpose components.

Reform sales organizations to correspond to market changes
Cultivate global sales engineers essential for B2B businesses such as commercial printing and network camera, and while striving to enhance the capabilities of these sales engineers, work to strengthen local service support systems with a focus on sales companies. Carry out the optimization of sales channels to correspond to changes in product and market landscapes, such as adapting to e-commerce.

Establish a human resource management system that adapts to the changing times
Build a human resource development system, a personnel system that enables a wide range of career paths that are in step with changes in the business environment and times.

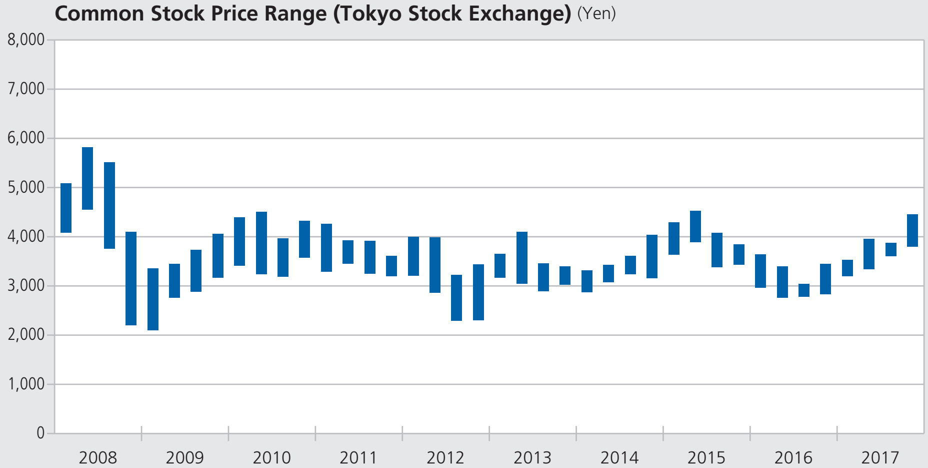
Forward looking statements

The foregoing discussion and other disclosure in this report contains forward-looking statements that reflect management's current views with respect to certain future events and financial performance. Actual results may differ materially from those projected or implied in the forward-looking statements. Further, certain forward-looking statements are based upon assumptions of future events that may not prove to be accurate. The following important factors could cause actual results to differ materially from those projected or implied in any forward-looking statements: foreign currency exchange rate fluctuations; the uncertainty of Canon's ability to implement its plans to localize production and other measures to reduce the impact of foreign currency exchange rate fluctuations; uncertainty as to economic conditions in Canon's major markets; uncertainty of continued demand for Canon's high-value-added products; Canon's ability to continue to develop products and to market products that incorporate new technology on a timely basis, are competitively priced, and achieve market acceptance; the possibility of losses resulting from foreign currency transactions designed to reduce financial risks from changes in foreign currency exchange rates; and inventory risk due to shifts in market demand.

TEN-YEAR FINANCIAL SUMMARY

	Millions of yen (except per share amounts)			
	2017	2016	2015	2014
Net sales:				
Domestic	**884,828**	706,979	714,280	724,317
Overseas	**3,195,187**	2,694,508	3,085,991	3,002,935
Total	**4,080,015**	3,401,487	3,800,271	3,727,252
Percentage of previous year	**119.9%**	89.5%	102.0%	99.9%
Net income attributable to Canon Inc.	**241,923**	150,650	220,209	254,797
Percentage of sales	**5.9%**	4.4%	5.8%	6.8%
Advertising	**61,207**	58,707	80,907	79,765
Research and development expenses	**330,053**	302,376	328,500	308,979
Depreciation of property, plant and equipment	**189,712**	199,133	223,759	213,739
Increase in property, plant and equipment	**147,542**	171,597	195,120	182,343
Long-term debt, excluding current installments	**493,238**	611,289	881	1,148
Canon Inc. shareholders' equity	**2,870,630**	2,783,129	2,966,415	2,978,184
Total assets	**5,198,291**	5,138,529	4,427,773	4,460,618
Per share data:				
Net income attributable to Canon Inc. shareholders per share:				
Basic	**222.88**	137.95	201.65	229.03
Diluted	**222.88**	137.95	201.65	229.03
Dividend per share	**160.00**	150.00	150.00	150.00
Stock price				
High	**4,472**	3,656	4,539	4,045
Low	**3,218**	2,780	3,402	2,889
Average number of common shares in thousands	**1,085,439**	1,092,071	1,092,018	1,112,510
Number of employees	**197,776**	197,673	189,571	191,889

Common Stock Price Range (Tokyo Stock Exchange) (Yen)



2013	2012	2011	2010	2009	2008	Thousands of U.S. dollars (except per share amounts) 2017
715,863	720,286	694,450	695,749	702,344	868,280	**$ 7,830,336**
3,015,517	2,759,502	2,862,983	3,011,152	2,506,857	3,225,881	**28,275,991**
3,731,380	3,479,788	3,557,433	3,706,901	3,209,201	4,094,161	**36,106,327**
107.2%	97.8%	96.0%	115.5%	78.4%	91.4%	**119.9%**
230,483	224,564	248,630	246,603	131,647	309,148	**2,140,912**
6.2%	6.5%	7.0%	6.7%	4.1%	7.6%	**5.9%**
86,398	83,134	81,232	94,794	78,009	112,810	**541,655**
306,324	296,464	307,800	315,817	304,600	374,025	**2,920,823**
223,158	211,973	210,179	232,327	277,399	304,622	**1,678,867**
188,826	270,457	226,869	158,976	216,128	361,988	**1,305,681**
1,448	2,117	3,368	4,131	4,912	8,423	**$ 4,364,938**
2,910,262	2,598,026	2,551,132	2,645,782	2,688,109	2,659,792	**25,403,805**
4,242,710	3,955,503	3,930,727	3,983,820	3,847,557	3,969,934	**46,002,575**
200.78	191.34	204.49	199.71	106.64	246.21	**$ 1.97**
200.78	191.34	204.48	199.70	106.64	246.20	**1.97**
130.00	130.00	120.00	120.00	110.00	110.00	**1.42**
4,115	4,015	4,280	4,520	4,070	5,820	**39.58**
2,913	2,308	3,220	3,205	2,115	2,215	**28.48**
1,147,934	1,173,648	1,215,832	1,234,817	1,234,482	1,255,626	
194,151	196,968	198,307	197,386	168,879	166,980	

Notes: U.S. dollar amounts are translated from yen at the rate of U.S.$1 = JPY113, the approximate exchange rate on the Tokyo Foreign Exchange Market as of December 29, 2017.

CONSOLIDATED BALANCE SHEETS

Canon Inc. and Subsidiaries
December 31, 2017 and 2016

	Millions of yen	
ASSETS	**2017**	2016
Current assets:		
Cash and cash equivalents (Note 1)	**721,814**	630,193
Short-term investments (Note 2)	**1,965**	3,206
Trade receivables, net (Note 3)	**650,872**	641,458
Inventories (Note 4)	**570,033**	560,736
Prepaid expenses and other current assets (Notes 6 and 17)	**287,965**	264,155
Total current assets	**2,232,649**	2,099,748
Noncurrent receivables (Note 18)	**35,444**	29,297
Investments (Note 2)	**48,320**	73,680
Property, plant and equipment, net (Notes 5 and 6)	**1,126,620**	1,194,976
Intangible assets, net (Notes 7 and 8)	**420,972**	446,268
Goodwill (Notes 7 and 8)	**936,722**	936,424
Other assets (Notes 6, 11 and 12)	**397,564**	358,136
Total assets	**5,198,291**	5,138,529

LIABILITIES AND EQUITY		
Current liabilities:		
Short-term loans and current portion of long-term debt (Note 9)	**39,328**	1,850
Trade payables (Note 10)	**380,654**	372,269
Accrued income taxes (Note 12)	**77,501**	30,514
Accrued expenses (Notes 11 and 18)	**330,188**	304,901
Other current liabilities (Notes 1, 5, and 17)	**281,809**	273,835
Total current liabilities	**1,109,480**	983,369
Long-term debt, excluding current installments (Notes 9 and 19)	**493,238**	611,289
Accrued pension and severance cost (Note 11)	**365,582**	407,200
Other noncurrent liabilities (Note 12)	**133,816**	142,049
Total liabilities	**2,102,116**	2,143,907
Commitments and contingent liabilities (Note 18)		
Equity:		
Canon Inc. shareholders' equity:		
Common stock		
Authorized 3,000,000,000 shares; issued 1,333,763,464 shares in 2017 and 2016	**174,762**	174,762
Additional paid-in capital	**401,386**	401,385
Legal reserve (Note 13)	**66,879**	66,558
Retained earnings (Note 13)	**3,429,312**	3,350,728
Accumulated other comprehensive income (loss) (Note 14)	**(143,228)**	(199,881)
Treasury stock, at cost; 254,007,681shares in 2017 and 241,695,310 shares in 2016	**(1,058,481)**	(1,010,423)
Total Canon Inc. shareholders' equity	**2,870,630**	2,783,129
Noncontrolling interests	**225,545**	211,493
Total equity	**3,096,175**	2,994,622
Total liabilities and equity	**5,198,291**	5,138,529

See accompanying Notes to Consolidated Financial Statements.

CONSOLIDATED STATEMENTS OF INCOME

Canon Inc. and Subsidiaries
Years ended December 31, 2017, 2016 and 2015

	Millions of yen		
	2017	2016	2015
Net sales	**4,080,015**	3,401,487	3,800,271
Cost of sales (Notes 5, 8, 11 and 18)	**2,087,324**	1,727,654	1,865,887
Gross profit	**1,992,691**	1,673,833	1,934,384
Operating expenses (Notes 1, 5, 8, 11, 18 and 20):			
Selling, general and administrative expenses	**1,297,247**	1,142,591	1,250,674
Research and development expenses	**330,053**	302,376	328,500
Impairment losses on goodwill	**33,912**	—	—
	1,661,212	1,444,967	1,579,174
Operating profit	**331,479**	228,866	355,210
Other income (deductions):			
Interest and dividend income	**6,012**	4,762	5,501
Interest expense	**(818)**	(1,061)	(584)
Other, net (Notes 1, 2 and 17)	**17,211**	12,084	(12,689)
	22,405	15,785	(7,772)
Income before income taxes	**353,884**	244,651	347,438
Income taxes (Note 12)	**98,024**	82,681	116,105
Consolidated net income	**255,860**	161,970	231,333
Less: Net income attributable to noncontrolling interests	**13,937**	11,320	11,124
Net income attributable to Canon Inc.	**241,923**	150,650	220,209
	Yen		
Net income attributable to Canon Inc. shareholders per share (Note 16):			
Basic	**222.88**	137.95	201.65
Diluted	**222.88**	137.95	201.65
Cash dividends per share	**160.00**	150.00	150.00

See accompanying Notes to Consolidated Financial Statements.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

Canon Inc. and Subsidiaries
Years ended December 31, 2017, 2016 and 2015

	Millions of yen		
	2017	2016	2015
Consolidated net income	**255,860**	161,970	231,333
Other comprehensive income (loss), net of tax (Note 14):			
Foreign currency translation adjustments	**47,090**	(107,666)	(55,504)
Net unrealized gains and losses on securities	**(9,362)**	997	2,010
Net gains and losses on derivative instruments	**2,588**	(2,948)	2,785
Pension liability adjustments	**21,207**	(70,355)	(6,543)
	61,523	(179,972)	(57,252)
Comprehensive income (loss)	**317,383**	(18,002)	174,081
Less: Comprehensive income attributable to noncontrolling interests	**18,807**	1,745	11,973
Comprehensive income (loss) attributable to Canon Inc.	**298,576**	(19,747)	162,108

See accompanying Notes to Consolidated Financial Statements.

CONSOLIDATED STATEMENTS OF EQUITY

Canon Inc. and Subsidiaries
Years ended December 31, 2017, 2016 and 2015

	Millions of yen								
	Common stock	Additional paid-in capital	Legal reserve	Retained earnings	Accumulated other comprehensive income (loss)	Treasury stock	Total Canon Inc. shareholders' equity	Noncontrolling interests	Total equity
Balance at December 31, 2014	174,762	401,563	64,599	3,320,392	28,286	(1,011,418)	2,978,184	162,574	3,140,758
Equity transactions with noncontrolling interests and other		(29)			73		44	(29,627)	(29,583)
Dividends to Canon Inc. shareholders				(174,711)			(174,711)		(174,711)
Dividends to noncontrolling interests								(3,958)	(3,958)
Acquisition of subsidiaries								77,086	77,086
Transfer to legal reserve			690	(690)			—		—
Comprehensive income:									
Net income				220,209			220,209	11,124	231,333
Other comprehensive income (loss), net of tax (Note 14):									
Foreign currency translation adjustments					(57,592)		(57,592)	2,088	(55,504)
Net unrealized gains and losses on securities					1,509		1,509	501	2,010
Net gains and losses on derivative instruments					2,785		2,785	—	2,785
Pension liability adjustments					(4,803)		(4,803)	(1,740)	(6,543)
Total comprehensive income							162,108	11,973	174,081
Repurchases and reissuance of treasury stock		(176)		(42)		1,008	790		790
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 (Note 14):									
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
Net gains and losses on derivative instruments					(2,924)		(2,924)	(24)	(2,948)
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 (Note 14):									
Foreign currency translation adjustments					**44,168**		**44,168**	**2,922**	**47,090**
Net unrealized gains and losses on securities					**(9,767)**		**(9,767)**	**405**	**(9,362)**
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**

See accompanying Notes to Consolidated Financial Statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS

Canon Inc. and Subsidiaries
Years ended December 31, 2017, 2016 and 2015

	Millions of yen		
	2017	2016	2015
Cash flows from operating activities:			
Consolidated net income	**255,860**	161,970	231,333
Adjustments to reconcile consolidated net income to net cash provided by operating activities:			
Depreciation and amortization	**261,881**	250,096	273,327
Loss on disposal of fixed assets	**6,935**	5,203	7,975
Equity in earnings of affiliated companies	**(1,196)**	(890)	(447)
Impairment losses on goodwill (Notes 8 and 20)	**33,912**	—	—
Gain on securities contributed to retirement benefit trust (Note 2)	**(17,836)**	—	—
Deferred income taxes	**(17,603)**	7,188	4,672
(Increase) decrease in trade receivables	**3,563**	(4,155)	22,720
Decrease in inventories	**2,967**	6,156	14,249
Increase (decrease) in trade payables	**4,951**	56,844	(17,288)
Increase (decrease) in accrued income taxes	**46,296**	(16,456)	(8,731)
Increase (decrease) in accrued expenses	**18,503**	(5,256)	(25,529)
Increase in accrued (prepaid) pension and severance cost	**522**	5,489	4,622
Other, net	**(8,198)**	34,094	(32,179)
Net cash provided by operating activities	**590,557**	500,283	474,724
Cash flows from investing activities:			
Purchases of fixed assets (Note 5)	**(189,484)**	(206,971)	(252,948)
Proceeds from sale of fixed assets (Note 5)	**26,444**	6,177	3,824
Purchases of available-for-sale securities	**(2,220)**	(84)	(98)
Proceeds from sale and maturity of available-for-sale securities	**970**	1,181	804
Decrease in time deposits, net	**3,373**	15,414	47,665
Acquisitions of businesses, net of cash acquired (Note 7)	**(6,557)**	(649,570)	(251,534)
Purchases of other investments	**(928)**	(4,460)	(1,220)
Other, net	**3,392**	1,188	(112)
Net cash used in investing activities	**(165,010)**	(837,125)	(453,619)
Cash flows from financing activities:			
Proceeds from issuance of long-term debt (Note 9)	**1,570**	610,552	717
Repayments of long-term debt (Note 9)	**(126,578)**	(856)	(1,350)
Increase (decrease) in short-term loans, net (Note 9)	**5,628**	(80,580)	—
Purchases of noncontrolling interests	**—**	(4,993)	(29,570)
Dividends paid	**(162,887)**	(163,810)	(174,711)
Repurchases and reissuance of treasury stock	**(50,034)**	(14)	790
Other, net	**(8,163)**	(4,607)	(6,078)
Net cash provided by (used in) financing activities	**(340,464)**	355,692	(210,202)
Effect of exchange rate changes on cash and cash equivalents	**6,538**	(22,270)	(21,870)
Net change in cash and cash equivalents	**91,621**	(3,420)	(210,967)
Cash and cash equivalents at beginning of year	**630,193**	633,613	844,580
Cash and cash equivalents at end of year	**721,814**	630,193	633,613
Supplemental disclosure for cash flow information:			
Cash paid during the year for:			
Interest	**1,026**	738	653
Income taxes	**71,473**	76,714	117,643

See accompanying Notes to Consolidated Financial Statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Canon Inc. and Subsidiaries

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 production printing systems, high speed continuous feed printers, 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, magnetic resonance imaging, 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 21.

Canon sells laser printers on an OEM basis to HP Inc.; such sales constituted 13.1%, 14.8% and 17.8% of consolidated net sales for the years ended December 31, 2017, 2016 and 2015, 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 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 ¥9,775 million, ¥2 million and ¥22,149 million for the years ended December 31, 2017, 2016 and 2015, 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 and ¥30,500 million at December 31, 2017 and 2016, 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 marketable equity securities, investments in affiliated companies and non-marketable equity securities. Canon reports investments with maturities of less than one year as short-term investments.

Canon classifies investments in debt and marketable equity 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.

Available-for-sale securities are recorded at fair value. Fair value is determined based on quoted market prices, projected discounted cash flows or other valuation techniques as appropriate. Unrealized holding gains and losses, net of the related tax effect, are reported as a separate component of accumulated other comprehensive income (loss) until realized.

Available-for-sale 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 debt securities for which the declines are deemed to be other-than-temporary and there is no intent to sell, impairments are separated into the amount related to credit loss, which is recognized in earnings, and the amount related to all other factors, which is recognized in other comprehensive income (loss). For debt securities for which the declines are deemed to be other-than-temporary and there is an intent to sell, impairments in their entirety are recognized in earnings. For equity securities for which the declines are deemed to be other-than-temporary, 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.

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.

Non-marketable equity securities in companies over which Canon does not have the ability to exercise significant influence are stated at cost and reviewed periodically for impairment.

(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.

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 6 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 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, equipment, supplies, and related services under separate contractual arrangements. Canon recognizes revenue when persuasive evidence of an arrangement exists, delivery has occurred and title and risk of loss have been transferred to the customer or services have been rendered, the sales price is fixed or determinable, and collectability is probable.

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 title and risk of loss transfer to the customer.

Canon also offers separately priced product maintenance contracts for most office products, for which the customer typically pays a stated base service fee plus a variable amount based on usage. Revenue from these service maintenance contracts is measured at the stated amount of the contract and recognized as services are provided and variable amounts are earned.

Revenue from the sale of equipment under sales-type leases is recognized at the inception of the lease. 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 equipment leases are bundled with product maintenance contracts, revenue is allocated based upon the estimated relative fair value of the lease and non-lease deliverables. Lease deliverables generally include equipment, financing and executory costs, while non-lease deliverables generally consist of product maintenance contracts and supplies.

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 computed tomography and magnetic resonance imaging, is recognized when the equipment is installed at the customer site and the specific criteria of the equipment functionality are successfully tested. Service revenue is derived primarily from separately priced product maintenance contracts on the equipment sold to customers and is measured at the stated amount of the contract and recognized as services are provided.

For all other arrangements with multiple elements, Canon allocates revenue to each element based on its relative selling price if such element meets the criteria for treatment as a separate unit of accounting. Otherwise, revenue is deferred until the undelivered elements are fulfilled and accounted for as a single unit of accounting.

Canon records amounts received in advance from customers in excess of revenue recognized primarily for sales of optical equipment and product maintenance contracts as deferred revenue until the revenue recognition criteria are satisfied. Deferred revenue were ¥125,965 million and ¥102,298 million at December 31, 2017 and 2016, respectively, and are included in other current liabilities in the accompanying consolidated balance sheets.

Canon records estimated reductions to sales at the time of sale for sales incentive programs including product discounts, customer promotions and volume-based rebates. Estimated reductions to sales are based upon historical trends and other known factors at the time of sale. Canon regularly adjusts its estimates each period in the ordinary course of establishing sales incentive program accruals based on current information. Canon also provides price protection to certain resellers of its products, and records reductions to sales for the estimated impact of price protection obligations when announced.

Estimated product warranty costs are recorded at the time revenue is recognized and are included in selling, general and administrative expenses in the consolidated statements of income. Estimates for accrued product warranty costs are 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.

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

(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 ¥61,207 million, ¥58,707 million and ¥80,907 million for the years ended December 31, 2017, 2016 and 2015, respectively.

(t) Shipping and Handling Costs

Shipping and handling costs totaled ¥52,953 million, ¥44,296 million and ¥52,504 million for the years ended December 31, 2017, 2016 and 2015, 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-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) Recently Issued Accounting Guidance

In January 2017, the Financial Accounting Standards Board ("FASB") issued an amendment which eliminates the second step from the impairment test of goodwill. This amendment requires the entity to recognize an impairment charge for the amount by which the carrying amount exceeds the fair value of reporting unit; however, the impairment charge is limited to the amount of goodwill allocated to that reporting unit. Canon early adopted this amended guidance from the impairment test performed after January 1, 2017.

In May 2014, the FASB issued a new accounting standard related to revenue from contracts with customers, as amended. 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. This standard is effective for Canon from the quarter beginning January 1, 2018. Canon will apply the modified retrospective method of adoption to contracts that are not completed as of the adoption. While Canon currently does not expect the adoption of this standard to have a material impact on revenue recognition pattern of each performance obligation, the adoption of this standard is expected to result in changes in allocation of transaction prices between goods and services primarily in Office Business Unit. Canon is in the process of finalizing the assessment of the effect from the adoption and related adjustments. Also, in the course of the adoption of the guidance, Canon has reconsidered the scope of performance obligations related to services, and as a result, Canon will separately disclose revenues and costs of services from those of products and equipment from the quarter beginning January 1, 2018. In this context, certain costs related to service will be also reclassified from operating expenses to cost of sales.

In January 2016, the FASB issued an amendment 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. This guidance is effective for Canon from the first quarter beginning January 1, 2018, and Canon will recognize a cumulative-effect adjustment to retained earnings of ¥5,343 million as of January 1, 2018 for the after-tax unrealized gains of available-for-sale equity securities previously recognized in accumulated other comprehensive income.

In February 2016, the FASB issued an amendment which requires lessees to recognize most leases on their balance sheets but recognize expenses on their income statements in a manner similar to current guidance. For lessors, the guidance modifies the classification criteria and the accounting for sales-type and direct financing leases. The new guidance is required to be applied with a modified retrospective approach. The guidance is effective for annual reporting periods beginning after December 15, 2018, and early adoption is permitted. Canon currently plans to adopt the guidance from the quarter beginning after January 1, 2019. The adoption of the guidance is expected to have an impact on its consolidated balance sheet by recognizing right-of-use assets and lease liabilities for non-cancelable operating leases. Canon is currently evaluating the effect that the adoption of the guidance will have on its consolidated results of operations and financial condition.

In October 2016, the FASB issued an amendment 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. This guidance is effective for Canon from the quarter beginning January 1, 2018. Canon does not expect the adoption of this guidance to have a material impact on its consolidated results of operation and financial condition.

In March 2017, the FASB issued an amendment which requires an entity to disaggregate the service cost component from the other components of net benefit cost and report the service cost component in the same line item or items as other compensation costs arising from services rendered by the pertinent employees during the period. The other components of net benefit cost are required to be presented in the income statement separately from the service cost component, such as in other income (deductions). The amendments also allow only the service cost component to be eligible for capitalization (for example, as a cost of internally manufactured inventory). The amendments in this guidance should be applied retrospectively for the presentation of the service cost component and the other components of net benefit cost, and prospectively for the capitalization of the service cost component of net benefit cost. This guidance is effective for Canon from the quarter beginning January 1, 2018 and the adoption of this standard will result in the decrease in operating profit and the increase in other income of ¥9,874 million, ¥12,441 million and ¥11,352 million for the years ended December 31, 2017, 2016 and 2015, respectively.

In August 2017, the FASB issued an amendment 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. This guidance is effective for annual reporting periods beginning after December 15, 2018, and early adoption is permitted. Canon is currently evaluating the adoption date and the effect that the adoption of this guidance will have on its consolidated results of operations and financial condition.

2. INVESTMENTS

The cost, gross unrealized holding gains, gross unrealized holding losses and fair value for available-for-sale securities included in short-term investments and investments by major security type at December 31, 2017 and 2016 are as follows:

December 31 Millions of yen	Cost	Gross unrealized holding gains	Gross unrealized holding losses	Fair value
2017: 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**

Millions of yen	Cost	Gross unrealized holding gains	Gross unrealized holding losses	Fair value
2016: Noncurrent:				
Government bonds	277	—	8	269
Corporate bonds	43	188	2	229
Fund trusts	85	1	—	86
Equity securities	19,026	23,439	21	42,444
	19,431	23,628	31	43,028

Maturities of available-for-sale debt securities included in short-term investments and investments in the accompanying consolidated balance sheets are as follows at December 31, 2017:

	Millions of yen	
	Cost	Fair value
Due within one year	**1,222**	**1,222**
Due after one year through five years	**605**	**605**
Due after five years	**340**	**506**
	2,167	**2,333**

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.

Gross realized gains were ¥18,514 million, ¥750 million and ¥329 million for the years ended December 31, 2017, 2016 and 2015, respectively. Gross realized losses, including write-downs for impairments that were other-than-temporary, were ¥42 million, ¥1,032 million and ¥31 million for the years ended December 31, 2017, 2016 and 2015, respectively.

At December 31, 2017, substantially all of the available-for-sale securities with unrealized losses had been in a continuous unrealized loss position for less than twelve months.

Time deposits with original maturities of more than three months were ¥743 million and ¥3,206 million at December 31, 2017 and 2016, respectively, and were included in short-term investments in the accompanying consolidated balance sheets.

Aggregate cost of non-marketable equity securities accounted for under the cost method totaled ¥3,760 million and ¥7,800 million at December 31, 2017 and 2016, respectively. These investments were not evaluated for impairment at December 31, 2017 and 2016, respectively, because (a) Canon did not estimate the fair value of those investments as it was not practicable to estimate the fair value of the investments and (b) Canon did not identify any events or changes in circumstances that might have had significant adverse effects on the fair value of those investments.

Investments in affiliated companies accounted for by the equity method amounted to ¥20,496 million and ¥21,514 million at December 31, 2017 and 2016, 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 ¥1,196 million, ¥890 million and ¥447 million for the years ended December 31, 2017, 2016 and 2015 respectively.

3. TRADE RECEIVABLES

Trade receivables are summarized as follows:

December 31	Millions of yen	
	2017	2016
Notes	**37,077**	28,811
Accounts	**627,173**	623,722
	664,250	652,533
Less allowance for doubtful receivables	**(13,378)**	(11,075)
	650,872	641,458

4. INVENTORIES

Inventories are summarized as follows:

December 31	Millions of yen	
	2017	2016
Finished goods	**377,632**	373,337
Work in process	**144,251**	143,298
Raw materials	**48,150**	44,101
	570,033	560,736

5. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment are stated at cost less accumulated depreciation and are summarized as follows:

December 31	Millions of yen	
	2017	2016
Land	**274,551**	283,893
Buildings	**1,638,202**	1,656,087
Machinery and equipment	**1,804,982**	1,778,552
Construction in progress	**46,940**	54,786
	3,764,675	3,773,318
Less accumulated depreciation	**(2,638,055)**	(2,578,342)
	1,126,620	1,194,976

Depreciation expenses for the years ended December 31, 2017, 2016 and 2015 were ¥189,712 million, ¥199,133 million and ¥223,759 million, respectively.

Amounts due for purchases of property, plant and equipment were ¥23,432 million and ¥31,318 million at December 31, 2017 and 2016, 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.

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 6 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	Millions of yen	
	2017	2016
Total minimum lease payments receivable	**361,686**	306,766
Unguaranteed residual values	**15,055**	14,776
Executory costs	**(2,216)**	(34)
Unearned income	**(32,286)**	(30,288)
	342,239	291,220
Less allowance for credit losses	**(2,681)**	(2,325)
	339,558	288,895
Less current portion	**(120,186)**	(105,308)
	219,372	183,587

The activity in the allowance for credit losses is as follows:

Years ended December 31	Millions of yen	
	2017	2016
Balance at beginning of year	**2,325**	2,878
Charge-offs	**(1,523)**	(978)
Provision	**1,436**	398
Translation adjustments and other	**443**	27
Balance at end of year	**2,681**	2,325

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, 2017 and 2016 are not significant.

The cost of equipment leased to customers under operating leases included in property, plant and equipment, net at December 31, 2017 and 2016 was ¥103,078 million and ¥97,890 million, respectively. Accumulated depreciation on equipment under operating leases at December 31, 2017 and 2016 was ¥78,307 million and ¥75,997 million, respectively.

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, 2017.

Year ending December 31:	Millions of yen	
	Financing leases	Operating leases
2018	134,020	8,580
2019	102,203	4,446
2020	69,180	2,636
2021	38,264	1,347
2022	14,819	401
Thereafter	3,200	34
	361,686	17,444

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 ("TMSC"), which is 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 TMSC 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 a health care business within the realm of "safety and security," as a next-generation pillar of growth.

TMSC is one of the leading global companies in the medical equipment industry. Within the field of medical X-ray computed tomography systems in particular, TMSC is the overwhelming market share leader in Japan and has been steadily increasing its global market share. By maximizing the combination of both companies' management resources, Canon aims to solidify its business foundation for health care 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 TMSC was near the balance sheet date in 2016, and TMSC 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.

Millions of yen	Preliminary	Measurement Period Adjustment	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 TMSC 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.

The amounts of net sales of TMSC since the acquisition date included in the Canon's consolidated statement of income for the year ended December 31, 2016 were ¥13,582 million. The amounts of net income of TMSC included in the Canon's consolidated statement of income were not material.

The unaudited pro forma net sales for the years ended December 31, 2016 and 2015 as if TMSC had been included in Canon's consolidated statement of income from the beginning of the year ended December 31, 2015 were ¥3,806,667 million and ¥4,224,181 million, respectively. Pro forma net income was not disclosed because the impact on Canon's consolidated statements of income was not material.

Canon acquired businesses other than that described above during the years ended December 31, 2017 and 2016 that were not material to its consolidated financial statements.

8. GOODWILL AND OTHER INTANGIBLE ASSETS

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.

Intangible assets subject to amortization acquired during the year ended December 31, 2016, including those recorded from businesses acquired, totaled ¥266,325 million, which primarily consist of customer relationships of ¥155,997 million, patents and developed technology of ¥73,451 million and software of ¥36,054 million. The weighted average amortization periods for intangible assets in total acquired during the year ended December 31, 2016 are approximately 14 years. The weighted average amortization periods for customer relationships, patents and developed technology and software acquired during the year ended December 31, 2016 are approximately 15 - 20 years, 10 years and 5 years, respectively.

The components of intangible assets subject to amortization at December 31, 2017 and 2016 were as follows:

December 31 Millions of yen	2017 Gross carrying amount	2017 Accumulated amortization	2016 Gross carrying amount	2016 Accumulated amortization
Software	**342,322**	**217,654**	313,599	193,785
Customer relationships	**162,832**	**22,463**	172,234	11,146
Patents and developed technology	**121,886**	**27,085**	106,250	16,272
Trademarks	**48,823**	**9,890**	44,704	5,610
License fees	**13,565**	**6,375**	15,561	6,756
Other	**18,592**	**8,136**	17,713	8,250
	708,020	**291,603**	670,061	241,819

Aggregate amortization expense for the years ended December 31, 2017, 2016 and 2015 was ¥72,169 million, ¥50,963 million and ¥49,568 million, respectively. Estimated amortization expense for intangible assets currently held for the next five years ending December 31 is ¥67,791 million in 2018, ¥57,214 million in 2019, ¥45,435 million in 2020, ¥37,265 million in 2021, and ¥30,805 million in 2022.

Intangible assets not subject to amortization other than goodwill at December 31, 2017 were not significant. Intangible assets not subject to amortization other than goodwill at December 31, 2016 were ¥18,026 million, which primarily consist of in-process research and development recorded from businesses acquired.

For management reporting purposes, goodwill is not allocated to the segments. Goodwill has been allocated to its respective segment for impairment testing.

The changes in the carrying amount of goodwill by segment for the years ended December 31, 2017 and 2016 were as follows:

Years ended December 31 Millions of yen	Office	Imaging System	Medical System	Industry and Others	Unallocated*1	Total
2017: Balance at beginning of year	**136,256**	**49,034**	**—**	**258,456**	**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	**(33,912)**	**—**	**—**	**—**	**—**	**(33,912)**
Translation adjustments and other	**9,855**	**3,291**	**60**	**17,517**	**—**	**30,723**
Balance at end of year	**113,056**	**52,561**	**499,915**	**271,190**	**—**	**936,722**

Years ended December 31 Millions of yen	Office	Imaging System	Medical System	Industry and Others	Unallocated*1	Total
2016: Balance at beginning of year	142,551	53,474	—	282,918	—	478,943
Goodwill acquired during the year	863	—	—	4,589	492,678	498,130
Translation adjustments and other	(7,158)	(4,440)	—	(29,051)	—	(40,649)
Balance at end of year	136,256	49,034	—	258,456	492,678	936,424

*1 Canon did not complete the allocation of goodwill to the segments for impairment testing which was attributable to the acquisition of TMSC 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 TMSC 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.

9. SHORT-TERM LOANS AND LONG-TERM DEBT

Short-term loans consisting of bank borrowings at December 31, 2017 and 2016 were ¥33,398 million and ¥601 million, respectively. The weighted average interest rate on short-term borrowings outstanding at December 31, 2017 was 0.52%.

Long-term debt consisted of the following:

December 31	Millions of yen	
	2017	2016
Loan from the banks; bearing interest of 0.06% at December 31, 2017 and 0.13% at December 31, 2016*1	**490,000**	610,000
Other debt*2	**9,168**	2,538
	499,168	612,538
Less current portion	**(5,930)**	(1,249)
	493,238	611,289

*1 On January 31, 2017, Canon entered into the unsecured revolving credit facility contracts expiring in December 2021 in order to refinance the bank term loan which was due in 2017. Canon prepaid ¥120,000 million of the loan with cash flows generated during the year. The outstanding loans under the credit facilities are ¥490,000 million at a floating interest of 0.06% and Canon has no unused credit facilities as of December 31, 2017.
*2 The other debt consisted of term-loans and capital lease obligations as of December 31, 2017 and 2016.

The aggregate annual maturities of long-term debt outstanding at December 31, 2017 were as follows:

Year ending December 31:	Millions of yen
2018	5,930
2019	2,372
2020	404
2021	490,342
2022	48
Thereafter	72
	499,168

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.

10. TRADE PAYABLES

Trade payables are summarized as follows:

December 31	Millions of yen	
	2017	2016
Notes	**81,002**	38,073
Accounts	**299,652**	334,196
	380,654	372,269

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.

TMSC temporarily participates in Toshiba Corporate Pension Fund. However, it is not allowed to permanently continue to participate in the fund as a result of the acquisition by Canon. In addition, Canon is required to maintain an equivalent level of pension benefit and therefore plans to establish a new pension plan in 2018. Canon calculated the projected benefit obligations based on the benefit level of Toshiba Corporate Pension Fund at December 31, 2017 and 2016, and included proportional share of the plan assets of TMSC to which they have legal right in the following tables. These obligations and plan assets are expected to be reasonable estimates of the impact of creating the new plan.

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:

December 31	Japanese plans		Foreign plans	
	Millions of yen		Millions of yen	
	2017	2016	**2017**	2016
Change in benefit obligations:				
Projected benefit obligations at beginning of year	**906,007**	781,350	**392,086**	349,680
Service cost	**30,889**	29,367	**6,962**	6,816
Interest cost	**5,689**	8,238	**8,691**	8,792
Plan participants' contributions	**—**	—	**1,644**	1,594
Actuarial (gain) loss	**11,112**	45,778	**(1,760)**	55,629
Benefits paid	**(29,020)**	(25,032)	**(7,884)**	(6,268)
Acquisition	**4,239**	71,040	**—**	21,285
Plan amendments	**1,149**	(4,734)	**(1,069)**	—
Curtailments and settlements	**(435)**	—	**—**	—
Foreign currency exchange rate changes	**—**	—	**24,909**	(45,442)
Projected benefit obligations at end of year	**929,630**	906,007	**423,579**	392,086
Change in plan assets:				
Fair value of plan assets at beginning of year	**667,436**	626,575	**224,939**	217,870
Actual return on plan assets	**47,376**	12,145	**14,262**	18,276
Employer contributions	**43,468**	7,304	**7,160**	7,271
Plan participants' contributions	**—**	—	**1,644**	1,594
Benefits paid	**(23,967)**	(21,782)	**(7,884)**	(6,268)
Acquisition	**1,223**	43,194	**—**	14,972
Settlements	**(23)**	—	**—**	—
Foreign currency exchange rate changes	**—**	—	**13,899**	(28,776)
Fair value of plan assets at end of year	**735,513**	667,436	**254,020**	224,939
Funded status at end of year	**(194,117)**	(238,571)	**(169,559)**	(167,147)

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, 2017 and 2016 are as follows:

December 31	Japanese plans		Foreign plans	
	Millions of yen		Millions of yen	
	2017	2016	**2017**	2016
Other assets	**1,695**	976	**1,215**	1,346
Accrued expenses	**—**	—	**(1,004)**	(840)
Accrued pension and severance cost	**(195,812)**	(239,547)	**(169,770)**	(167,653)
	(194,117)	(238,571)	**(169,559)**	(167,147)

Amounts recognized in accumulated other comprehensive income (loss) at December 31, 2017 and 2016 before the effect of income taxes are as follows:

December 31	Japanese plans		Foreign plans	
	Millions of yen		Millions of yen	
	2017	2016	**2017**	2016
Actuarial loss	**221,106**	251,078	**105,883**	116,930
Prior service credit	**(57,430)**	(71,439)	**(3,638)**	(2,652)
	163,676	179,639	**102,245**	114,278

The accumulated benefit obligation for all defined benefit plans was as follows:

December 31	Japanese plans		Foreign plans	
	Millions of yen		Millions of yen	
	2017	2016	**2017**	2016
Accumulated benefit obligation	**894,329**	869,355	**402,390**	377,004

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:

December 31	Japanese plans		Foreign plans	
	Millions of yen		Millions of yen	
	2017	2016	**2017**	2016
Plans with projected benefit obligations in excess of plan assets:				
Projected benefit obligations	**924,536**	905,975	**420,383**	390,942
Fair value of plan assets	**728,724**	666,428	**249,609**	222,449
Plans with accumulated benefit obligations in excess of plan assets:				
Accumulated benefit obligations	**889,652**	867,706	**394,840**	375,860
Fair value of plan assets	**728,724**	664,586	**245,247**	222,449

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, 2017, 2016 and 2015 consisted of the following components:

Years ended December 31	Japanese plans			Foreign plans		
	Millions of yen			Millions of yen		
	2017	2016	2015	**2017**	2016	2015
Service cost	**30,889**	29,367	30,009	**6,962**	6,816	7,760
Interest cost	**5,689**	8,238	8,008	**8,691**	8,792	10,572
Expected return on plan assets	**(20,493)**	(19,443)	(19,579)	**(10,722)**	(10,012)	(11,857)
Amortization of prior service credit	**(12,860)**	(13,230)	(12,592)	**(83)**	85	(145)
Amortization of actuarial loss	**14,220**	10,944	10,402	**5,747**	2,185	3,839
(Gain) loss on curtailments and settlements	**(63)**	—	—	**—**	—	—
	17,382	15,876	16,248	**10,595**	7,866	10,169

Other changes in plan assets and benefit obligations recognized in other comprehensive income (loss) for the years ended December 31, 2017, 2016 and 2015 are summarized as follows:

Years ended December 31	Japanese plans			Foreign plans		
	Millions of yen			Millions of yen		
	2017	2016	2015	**2017**	2016	2015
Current year actuarial (gain) loss	**(15,771)**	53,076	9,519	**(5,300)**	47,365	6,302
Current year prior service credit	**1,149**	(4,734)	—	**(1,069)**	—	(2,655)
Amortization of actuarial loss	**(14,220)**	(10,944)	(10,402)	**(5,747)**	(2,185)	(3,839)
Amortization of prior service credit	**12,860**	13,230	12,592	**83**	(85)	145
Curtailments and settlements	**19**	—	—	**—**	—	—
	(15,963)	50,628	11,709	**(12,033)**	45,095	(47)

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	Foreign plans
	Millions of yen	Millions of yen
Prior service credit	(12,727)	(52)
Actuarial loss	11,821	4,466

Assumptions

Weighted-average assumptions used to determine benefit obligations are as follows:

December 31	Japanese plans		Foreign plans	
	2017	2016	**2017**	2016
Discount rate	**0.6%**	0.7%	**2.2%**	2.2%
Assumed rate of increase in future compensation levels	**2.6%**	2.6%	**1.8%**	2.1%

Weighted-average assumptions used to determine net periodic benefit cost are as follows:

Years ended December 31	Japanese plans			Foreign plans		
	2017	2016	2015	**2017**	2016	2015
Discount rate	**0.7%**	1.1%	1.1%	**2.2%**	3.0%	2.9%
Assumed rate of increase in future compensation levels	**2.6%**	3.0%	3.0%	**2.1%**	2.0%	2.0%
Expected long-term rate of return on plan assets	**3.1%**	3.1%	3.1%	**4.2%**	4.4%	5.6%

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 40% is invested in equity securities, approximately 25% is invested in debt securities, and approximately 35% 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 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 20. The fair values of Canon's pension plan assets at December 31, 2017 and 2016, by asset category, are as follows:

December 31, 2017	Millions of yen							
	Japanese plans				Foreign plans			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Equity securities:								
Japanese companies (a)	**83,765**	**—**	**—**	**83,765**	**—**	**—**	**—**	**—**
Foreign companies	**8,261**	**—**	**—**	**8,261**	**32,240**	**—**	**—**	**32,240**
Pooled funds (b)	**—**	**164,946**	**—**	**164,946**	**—**	**73,968**	**—**	**73,968**
Debt securities:								
Government bonds (c)	**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 (d)	**—**	**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**

December 31, 2016	Millions of yen							
	Japanese plans				Foreign plans			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Equity securities:								
Japanese companies (e)	46,630	—	—	46,630	—	—	—	—
Foreign companies	7,902	—	—	7,902	22,680	—	—	22,680
Pooled funds (f)	—	133,023	—	133,023	—	62,641	—	62,641
Debt securities:								
Government bonds (g)	99,157	—	—	99,157	11,558	—	—	11,558
Municipal bonds	—	1,317	—	1,317	—	2,577	—	2,577
Corporate bonds	—	14,298	—	14,298	—	19,989	—	19,989
Pooled funds (h)	—	121,066	—	121,066	—	22,296	—	22,296
Mortgage backed securities (and other asset backed securities)	—	13,612	—	13,612	—	—	—	—
Life insurance company general accounts	—	128,220	—	128,220	—	6,898	—	6,898
Other assets	—	90,637	—	90,637	—	71,358	24	71,382
Investment measured at net asset value	—	—	—	11,574	—	—	—	4,918
	153,689	502,173	—	667,436	34,238	185,759	24	224,939

(a) The plan's equity securities include common stock of the Company and certain of its subsidiaries in the amounts of ¥381 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, 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.
(e) The plan's equity securities include common stock of the Company and certain of its subsidiaries in the amounts of ¥187 million.
(f) These funds invest in listed equity securities consisting of approximately 25% Japanese companies and 75% foreign companies for Japanese plans, and mainly foreign companies for foreign plans.
(g) This class includes approximately 85% Japanese government bonds and 15% foreign government bonds for Japanese plans, and mainly foreign government bonds for foreign plans.
(h) These funds invest in approximately 25% Japanese government bonds, 50% 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, 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.

Amounts of actual returns on, and purchases and sales of, Level 3 assets during the years ended December 31, 2017 and 2016 were not significant.

The fair values of plan assets by each asset category of TMSC are calculated based on a pro-rata basis of total plan assets of Toshiba Corporate Pension Fund.

Contributions

Canon expects to contribute ¥14,447 million to its Japanese defined benefit pension plans and ¥22,303 million to its foreign defined benefit pension plans for the year ending December 31, 2018.

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	Foreign plans
	Millions of yen	Millions of yen
2018	33,137	10,599
2019	34,534	10,743
2020	36,631	11,250
2021	38,470	11,986
2022	41,900	12,666
2023–2027	218,317	71,944

Multiemployer pension plans

The amounts of cost recognized for the multiemployer pension plans primarily in the Netherlands for the years ended December 31, 2017, 2016 and 2015 were ¥4,165 million, ¥3,482 million and ¥3,864 million, respectively. The multiemployer pension plan in which the subsidiaries in the Netherlands participated was 96% funded as of December 31, 2016. 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, 2017, 2016 and 2015 were ¥18,979 million, ¥17,603 million and ¥17,277 million, respectively.

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:

Years ended December 31	Millions of yen		
	Japanese	Foreign	Total
2017: 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**
2016: 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
2015: Income before income taxes	228,871	118,567	347,438
Income taxes:			
Current	80,020	31,413	111,433
Deferred	3,414	1,258	4,672
	83,434	32,671	116,105

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%, 33% and 35% for the years ended December 31, 2017, 2016 and 2015, respectively.

The statutory income tax rate utilized for deferred tax assets and liabilities which are expected to be settled or realized in the periods from January 1, 2017 is approximately 31%. The adjustments of deferred tax assets and liabilities for amendments to the Japanese tax regulations which have been reflected in income taxes in the consolidated statements of income for the years ended December 31, 2016 and 2015 were ¥3,498 million and ¥6,456 million, respectively.

The Tax Cuts and Jobs Act of 2017 (the "Act") was enacted in the U.S. on December 22, 2017. Due to the Act, 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 Act are not material.

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	**2017**	2016	2015
Japanese statutory income tax rate	**31.0%**	33.0%	35.0%
Increase (reduction) in income taxes resulting from:			
Expenses not deductible for tax purposes*	**3.7**	0.8	0.8
Income of foreign subsidiaries taxed at lower than Japanese statutory tax rate	**(2.1)**	(3.0)	(2.9)
Tax credit for research and development expenses	**(4.8)**	(3.0)	(4.8)
Change in valuation allowance	**1.7**	(0.8)	(0.4)
Effect of enacted changes in tax laws and rates on Japanese tax	**—**	1.4	1.9
Effect of enacted changes in U.S. tax laws	**(3.6)**	—	—
Other	**1.8**	5.4	3.8
Effective income tax rate	**27.7%**	33.8%	33.4%

* 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	Millions of yen	
	2017	2016
Other assets	**150,854**	149,866
Other noncurrent liabilities	**(90,010)**	(108,429)
	60,844	41,437

The tax effects of temporary differences that give rise to the deferred tax assets and deferred tax liabilities at December 31, 2017 and 2016 are presented below:

December 31	Millions of yen	
	2017	2016
Deferred tax assets:		
Inventories	**11,921**	15,387
Accrued business tax	**4,705**	1,835
Accrued pension and severance cost	**98,114**	108,781
Research and development—costs capitalized for tax purposes	**5,383**	5,998
Property, plant and equipment	**33,488**	26,519
Accrued expenses	**30,126**	31,316
Net operating losses carried forward	**29,006**	29,167
Other	**38,526**	33,782
	251,269	252,785
Less valuation allowance	**(30,783)**	(26,687)
Total deferred tax assets	**220,486**	226,098
Deferred tax liabilities:		
Undistributed earnings of foreign subsidiaries	**(9,859)**	(9,450)
Net unrealized gains on securities	**(1,815)**	(7,321)
Tax deductible reserve	**(4,396)**	(4,449)
Financing lease revenue	**(38,287)**	(47,802)
Intangible assets	**(74,377)**	(85,888)
Other	**(30,908)**	(29,751)
Total deferred tax liabilities	**(159,642)**	(184,661)
Net deferred tax assets	**60,844**	41,437

The net changes in the total valuation allowance were an increase of ¥4,096 million for the year ended December, 2017 and a decrease of ¥6,244 million and ¥4,567 million for the years ended December 31, 2016 and 2015, 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, 2017.

At December 31, 2017, Canon had net operating losses which can be carried forward for income tax purposes of ¥185,637 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	654
After one year through five years	38,641
After five years through ten years	39,278
After ten years through twenty years	52,250
Indefinite period	54,814
Total	185,637

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 ¥27,361 million for a portion of undistributed earnings of foreign subsidiaries of ¥961,735 million as of December 31, 2017 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	Millions of yen		
	2017	2016	2015
Balance at beginning of year	**7,318**	6,056	6,431
Additions for tax positions of the current year	**2,956**	2,741	2,174
Additions for tax positions of prior years	**250**	—	165
Reductions for tax positions of prior years	**(915)**	(665)	(1,180)
Settlements with tax authorities	**—**	(370)	(505)
Other	**673**	(444)	(1,029)
Balance at end of year	**10,282**	7,318	6,056

The total amounts of unrecognized tax benefits that would reduce the effective tax rate, if recognized, were ¥10,282 million and ¥7,318 million at December 31, 2017 and 2016, 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, 2017, 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, 2017 and 2016, and interest and penalties included in income taxes for the years ended December 31, 2017, 2016 and 2015 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 2007 with few exceptions. The tax authorities are currently conducting income tax examinations of Canon's income tax returns for years after 2006 in major foreign tax jurisdictions.

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, 2017, 2016 and 2015 represent dividends paid out during those years and the related appropriations to the legal reserve. Retained earnings at December 31, 2017 did not reflect current year-end dividends in the amount of ¥91,779 million which were approved by the shareholders in March 2018.

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 ¥953,952 million at December 31, 2017.

Retained earnings at December 31, 2017 included Canon's equity in undistributed earnings of affiliated companies accounted for by the equity method in the amount of ¥17,139 million.

14. OTHER COMPREHENSIVE INCOME (LOSS)

Changes in accumulated other comprehensive income (loss) for the years ended December 31, 2017, 2016 and 2015 are as follows:

Millions of yen	Foreign currency translation adjustments	Unrealized gains and losses on securities	Gains and losses on derivative instruments	Pension liability adjustments	Total
Balance at December 31, 2014	144,557	12,546	(2,603)	(126,214)	28,286
Equity transactions with noncontrolling interests and other	73	—	—	—	73
Other comprehensive income (loss) before reclassifications	(57,592)	1,691	(256)	(6,155)	(62,312)
Amounts reclassified from accumulated other comprehensive income (loss)	—	(182)	3,041	1,352	4,211
Net change during the year	(57,519)	1,509	2,785	(4,803)	(58,028)
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)**

Reclassifications out of accumulated other comprehensive income (loss) for the years ended December 31, 2017, 2016 and 2015 are as follows:

Years ended December 31	Amount reclassified from accumulated other comprehensive income (loss)*1			Affected line items in consolidated statements of income
	Millions of yen			
	2017	2016	2015	
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	**(18,472)**	282	(298)	Other, net
	5,727	(94)	104	Income taxes
	(12,745)	188	(194)	Consolidated net income
	165	194	12	Net income attributable to noncontrolling interests
	(12,580)	382	(182)	Net income attributable to Canon Inc.
Gains and losses on derivative instruments	**5,772**	(5,890)	4,217	Other, net
	(1,732)	2,049	(1,180)	Income taxes
	4,040	(3,841)	3,037	Consolidated net income
	(26)	(21)	4	Net income attributable to noncontrolling interests
	4,014	(3,862)	3,041	Net income attributable to Canon Inc.
Pension liability adjustments	**7,005**	(16)	1,504	See Note 11
	(1,832)	164	(175)	Income taxes
	5,173	148	1,329	Consolidated net income
	(268)	(49)	23	Net income attributable to noncontrolling interests
	4,905	99	1,352	Net income attributable to Canon Inc.
Total amount reclassified, net of tax and noncontrolling interests	**(3,677)**	(3,288)	4,211	

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

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	Millions of yen		
	Before-tax amount	Tax (expense) or benefit	Net-of-tax amount
2017:			
Foreign currency translation adjustments:			
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**
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)
2015:			
Foreign currency translation adjustments	(56,054)	550	(55,504)
Net unrealized gains and losses on securities:			
Amount arising during the year	3,249	(1,045)	2,204
Reclassification adjustments for gains and losses realized in net income	(298)	104	(194)
Net change during the year	2,951	(941)	2,010
Net gains and losses on derivative instruments:			
Amount arising during the year	52	(304)	(252)
Reclassification adjustments for gains and losses realized in net income	4,217	(1,180)	3,037
Net change during the year	4,269	(1,484)	2,785
Pension liability adjustments:			
Amount arising during the year	(13,166)	5,294	(7,872)
Reclassification adjustments for gains and losses realized in net income	1,504	(175)	1,329
Net change during the year	(11,662)	5,119	(6,543)
Other comprehensive income (loss)	(60,496)	3,244	(57,252)

15. STOCK-BASED COMPENSATION

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, 2017, 2016 and 2015 was nil.

A summary of option activity under the stock option plans as of and for the years ended December 31, 2017, 2016 and 2015 is presented below:

	Shares	Weighted-average exercise price	Weighted-average remaining contractual term	Aggregate intrinsic value
		Yen	Year	Millions of yen
Outstanding at January 1, 2015	1,861,800	4,036	0.7	248
Exercised	(249,600)	3,311		
Forfeited/Expired	(316,200)	3,678		
Outstanding at December 31, 2015	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	—	—		—
Exercisable at December 31, 2017	—	—		—

Cash received from the exercise of stock options for the years ended December 31, 2017 and 2016 were nil, and 2015 was ¥826 million, respectively.

16. 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	Millions of yen		
	2017	2016	2015
Net income attributable to Canon Inc.	**241,923**	150,650	220,209
	Number of shares		
Average common shares outstanding	**1,085,439,370**	1,092,070,680	1,092,017,955
Effect of dilutive securities:			
Stock options	**—**	—	34,931
Diluted common shares outstanding	**1,085,439,370**	1,092,070,680	1,092,052,886
	Yen		
Net income attributable to Canon Inc. shareholders per share:			
Basic	**222.88**	137.95	201.65
Diluted	**222.88**	137.95	201.65

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. The computation of diluted net income attributable to Canon Inc. shareholders per share for the year ended December 31, 2015 excludes certain outstanding stock options because the effect would be anti-dilutive.

17. 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, 2017 and 2016 are set forth below:

December 31	Millions of yen	
	2017	2016
To sell foreign currencies	**272,563**	371,644
To buy foreign currencies	**46,168**	46,741

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, 2017 and 2016.

Derivatives designated as hedging instruments

December 31		Fair value	
		Millions of yen	
	Balance sheet location	**2017**	2016
Assets:			
Foreign exchange contracts	Prepaid expenses and other current assets	**255**	19
Liabilities:			
Foreign exchange contracts	Other current liabilities	**367**	1,913

Derivatives not designated as hedging instruments

December 31		Fair value	
		Millions of yen	
	Balance sheet location	**2017**	2016
Assets:			
Foreign exchange contracts	Prepaid expenses and other current assets	**289**	567
Liabilities:			
Foreign exchange contracts	Other current liabilities	**2,892**	7,479

Effect of derivative instruments in the consolidated statements of income

The following tables present the effect of Canon's derivative instruments in the consolidated statements of income for the years ended December 31, 2017, 2016 and 2015.

Derivatives in cash flow hedging relationships

Years ended December 31	Gain (loss) recognized in OCI (effective portion)	Gain (loss) reclassified from accumulated OCI into income (effective portion)		Gain (loss) recognized in income (ineffective portion and amount excluded from effectiveness testing)	
Millions of yen	Amount	Location	Amount	Location	Amount
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)
2015: Foreign exchange contracts	52	Other, net	(4,217)	Other, net	(131)

Derivatives not designated as hedging instruments

Years ended December 31		Gain (loss) recognized in income on derivative		
		Millions of yen		
	Location	**2017**	2016	2015
Foreign exchange contracts	Other, net	**(7,932)**	7,018	1,099

18. COMMITMENTS AND CONTINGENT LIABILITIES

Commitments

At December 31, 2017, commitments outstanding for the purchase of property, plant and equipment approximated ¥36,199 million, and commitments outstanding for the purchase of parts and raw materials approximated ¥135,649 million.

Canon occupies sales offices and other facilities under lease arrangements accounted for as operating leases. Deposits made under such arrangements aggregated ¥13,740 million and ¥13,128 million at December 31, 2017 and 2016, respectively, and are included in noncurrent receivables in the accompanying consolidated balance sheets. Rental expenses of cancelable and noncancelable operating leases amounted to ¥47,619 million, ¥42,714 million and ¥46,483 million for the years ended December 31, 2017, 2016 and 2015, 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, 2017 are as follows:

Year ending December 31:	Millions of yen
2018	28,414
2019	21,437
2020	16,185
2021	12,721
2022	9,774
Thereafter	22,971
Total future minimum lease payments	111,502

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 ¥6,059 million at December 31, 2017. The carrying amounts of the liabilities recognized for Canon's obligations as a guarantor under those guarantees at December 31, 2017 were not significant.

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, 2017 and 2016 are summarized as follows:

Years ended December 31	Millions of yen	
	2017	2016
Balance at beginning of year	**13,168**	14,014
Additions	**18,893**	15,403
Utilization	**(12,957)**	(12,759)
Other	**(1,652)**	(3,490)
Balance at end of year	**17,452**	13,168

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.

19. 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, 2017 and 2016 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 17, respectively.

December 31	Millions of yen			
	2017		2016	
	Carrying amount	Estimated fair value	Carrying amount	Estimated fair value
Long-term debt, including current installments	**(499,168)**	**(499,126)**	(612,538)	(612,668)

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 20.

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, 2017 and 2016, one customer accounted for approximately 8% and 12% 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.

20. 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.

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, 2017 and 2016.

December 31 Millions of yen	Level 1	Level 2	Level 3	Total
2017: Assets:				
Cash and cash equivalents	**—**	**70,500**	**—**	**70,500**
Available-for-sale (current):				
Corporate bonds	**1,222**	**—**	**—**	**1,222**
Available-for-sale (noncurrent):				
Government bonds	**289**	**—**	**—**	**289**
Corporate bonds	**605**	**217**	**—**	**822**
Fund trusts	**13**	**111**	**—**	**124**
Equity securities	**20,901**	**—**	**—**	**20,901**
Derivatives	**—**	**544**	**—**	**544**
Total assets	**23,030**	**71,372**	**—**	**94,402**
Liabilities:				
Derivatives	**—**	**3,259**	**—**	**3,259**
Total liabilities	**—**	**3,259**	**—**	**3,259**

Millions of yen	Level 1	Level 2	Level 3	Total
2016: Assets:				
Cash and cash equivalents	—	30,500	—	30,500
Available-for-sale (noncurrent):				
Government bonds	269	—	—	269
Corporate bonds	—	229	—	229
Fund trusts	12	74	—	86
Equity securities	42,444	—	—	42,444
Derivatives	—	586	—	586
Total assets	42,725	31,389	—	74,114
Liabilities:				
Derivatives	—	9,392	—	9,392
Total liabilities	—	9,392	—	9,392

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

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. There were no assets or liabilities to be measured at fair value on a nonrecurring basis during the year ended December 31, 2016.

Year ended December 31, 2017 Millions of yen	Total loss	Level 1	Level 2	Level 3	Total
2017: 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.

21. 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, 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 years ended December 31, 2016 and 2015 were not restated since they were not material. Total assets for the year ended December 31, 2016 have been restated and for the year ended December 31, 2015 were not restated since they were not material.

The primary products included in each segment are as follows:

Office Business Unit:
Office multifunction devices (MFDs) / Laser multifunction printers (MFPs) / Laser printers / Digital production printing systems / High speed continuous feed printers / 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 / Magnetic resonance imaging / 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. Canon evaluates performance of, and allocates resources to, each segment based on operating profit.

Information about operating results and assets for each segment as of and for the years ended December 31, 2017, 2016 and 2015 is as follows:

Millions of yen	Office	Imaging System	Medical System	Industry and Others	Corporate and eliminations	Consolidated
2017: Net sales:						
External customers	**1,863,688**	**1,135,584**	**434,985**	**645,758**	**—**	**4,080,015**
Intersegment	**2,240**	**604**	**1,202**	**85,946**	**(89,992)**	**—**
Total	**1,865,928**	**1,136,188**	**436,187**	**731,704**	**(89,992)**	**4,080,015**
Operating cost and expenses	**1,685,280**	**960,275**	**413,682**	**674,916**	**14,383**	**3,748,536**
Operating profit	**180,648**	**175,913**	**22,505**	**56,788**	**(104,375)**	**331,479**
Total assets	**962,006**	**387,088**	**238,824**	**360,271**	**3,250,102**	**5,198,291**
Depreciation and amortization	**74,377**	**41,695**	**5,212**	**37,705**	**102,892**	**261,881**
Impairment losses on goodwill	**33,912**	**—**	**—**	**—**	**—**	**33,912**
Capital expenditures	**47,653**	**28,508**	**8,963**	**15,736**	**80,529**	**181,389**
2016: Net sales:						
External customers	1,804,862	1,094,291	—	502,334	—	3,401,487
Intersegment	2,957	998	—	82,326	(86,281)	—
Total	1,807,819	1,095,289	—	584,660	(86,281)	3,401,487
Operating cost and expenses	1,638,333	950,876	—	577,212	6,200	3,172,621
Operating profit	169,486	144,413	—	7,448	(92,481)	228,866
Total assets	961,749	391,661	204,755	340,455	3,239,909	5,138,529
Depreciation and amortization	78,319	47,386	—	41,053	83,338	250,096
Capital expenditures	72,189	25,564	—	29,346	81,280	208,379
2015: Net sales:						
External customers	2,108,246	1,262,667	—	429,358	—	3,800,271
Intersegment	2,570	1,168	—	95,293	(99,031)	—
Total	2,110,816	1,263,835	—	524,651	(99,031)	3,800,271
Operating cost and expenses	1,820,230	1,080,396	—	537,730	6,705	3,445,061
Operating profit	290,586	183,439	—	(13,079)	(105,736)	355,210
Total assets	1,020,758	452,283	—	332,252	2,622,480	4,427,773
Depreciation and amortization	86,206	52,070	—	45,064	89,987	273,327
Capital expenditures	73,819	38,337	—	24,241	106,733	243,130

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 TMSC 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 product sales to external customers by business unit for the years ended December 31, 2017, 2016 and 2015 is as follows:

Years ended December 31	Millions of yen		
	2017	2016	2015
Office			
Monochrome copiers	**287,823**	289,532	328,061
Color copiers	**405,576**	386,193	421,209
Printers	**702,491**	664,846	857,369
Others	**467,798**	464,291	501,607
Total	**1,863,688**	1,804,862	2,108,246
Imaging System			
Cameras	**702,598**	666,868	782,623
Inkjet printers	**333,721**	329,066	362,663
Others	**99,265**	98,357	117,381
Total	**1,135,584**	1,094,291	1,262,667
Medical System			
Diagnostic equipment	**434,985**	—	—
Industry and Others			
Lithography equipment	**193,113**	121,090	123,887
Others	**452,645**	381,244	305,471
Total	**645,758**	502,334	429,358
Consolidated	**4,080,015**	3,401,487	3,800,271

Information by major geographic area as of and for the years ended December 31, 2017, 2016 and 2015 is as follows:

	Millions of yen		
	2017	2016	2015
Net sales:			
Japan	**884,828**	706,979	714,280
Americas	**1,107,515**	963,544	1,144,422
Europe	**1,028,415**	913,523	1,074,366
Asia and Oceania	**1,059,257**	817,441	867,203
Total	**4,080,015**	3,401,487	3,800,271
Long-lived assets:			
Japan	**1,081,522**	1,163,374	937,716
Americas	**141,937**	147,129	150,105
Europe	**174,889**	166,734	183,451
Asia and Oceania	**149,244**	164,007	189,588
Total	**1,547,592**	1,641,244	1,460,860

Net sales are attributed to areas based on the location where the product is shipped 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 ¥1,022,305 million, ¥884,083 million and ¥1,047,838 million for the years ended December 31, 2017, 2016 and 2015, respectively.

Long-lived assets represent property, plant and equipment and intangible assets for each geographic area.

SCHEDULE II VALUATION AND QUALIFYING ACCOUNTS

Years ended December 31 Millions of yen	Balance at beginning of period	Addition-charged to income	Deduction bad debts written off	Translation adjustments and other	Balance at end of period
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**
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
2015: Allowance for doubtful receivables					
Trade receivables	12,122	2,180	(1,745)	(480)	12,077
Finance receivables	6,276	55	(1,343)	(2,110)	2,878

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, 2017. 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, 2017, 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.

During 2017, Toshiba Medical Systems Corporation ("TMSC") (Canon Medical Systems Corporation as of January 4, 2018) which Canon acquired in 2016 was integrated into the Canon's internal control over financial reporting. Canon assessed the effectiveness of internal control over financial reporting of TMSC as of December 31, 2017. There are no other changes 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.

Fujio Mitarai
Chairman & CEO

Toshizo Tanaka
Executive Vice President & CFO

March 29, 2018

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

EY
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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, 2017 and 2016, the related consolidated statements of income, comprehensive income, equity and cash flows for each of the three years in the period ended December 31, 2017, and the related notes and schedule of valuation and qualifying accounts (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, 2017 and 2016, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2017, 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, 2017, 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 29, 2018 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.

Ernst & Young ShinNihon LLC

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

March 29, 2018

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

EY
Building a better working world

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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, 2017, 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, 2017, 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, 2017 and 2016, the related consolidated statements of income, comprehensive income, equity and cash flows for each of the three years in the period ended December 31, 2017, and the related notes and schedule of valuation and qualifying accounts and our report dated March 29, 2018 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.

Ernst & Young ShinNihon LLC

March 29, 2018