# **SONY**Consolidated Financial Statements

For the fiscal year ended March 31, 2019

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### Management's Annual Report on Internal Control over Financial Reporting

Sony's management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934. Sony's internal control over financial reporting is 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 in the United States of America. Sony's internal control over financial reporting includes those policies and procedures that:

- (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of Sony;
- (ii) 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 Sony are being made only in accordance with authorizations of management and directors; and
- (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of Sony'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.

Sony's management excluded DH Publishing, L.P. ("EMI"), which owned and managed EMI Music Publishing and became a wholly-owned subsidiary of Sony on November 14, 2018, from its assessment of the effectiveness of Sony's internal control over financial reporting as of March 31, 2019, except for the recording of the fair value of the intangibles and residual goodwill. EMI represented less than 1% of (i) Sony's total assets as of March 31, 2019 (after excluding EMI's intangibles and goodwill) and (ii) Sony's total sales and operating revenue for the fiscal year ended March 31, 2019. EMI Music Publishing acquisition is discussed in Note 25 to the consolidated financial statements.

Sony's management evaluated the effectiveness of Sony's internal control over financial reporting as of March 31, 2019 based on the criteria established in "Internal Control — Integrated Framework (2013)" issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on the evaluation, management has concluded that Sony maintained effective internal control over financial reporting as of March 31, 2019.

Sony's independent registered public accounting firm, PricewaterhouseCoopers Aarata LLC, has issued an audit report on Sony's internal control over financial reporting as of March 31, 2019, presented on page 3 to 4.

### Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Sony Corporation (Sony Kabushiki Kaisha)

# Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Sony Corporation and its subsidiaries (the "Company") as of March 31, 2019 and 2018, and the related consolidated statements of income, comprehensive income, cash flows and changes in stockholders' equity for each of the three years in the period ended March 31, 2019, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of March 31, 2019, based on criteria established in *Internal Control* — *Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of March 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended March 31, 2019 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of March 31, 2019, based on criteria established in *Internal Control — Integrated Framework* (2013) issued by the COSO.

### Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (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 audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated 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 consolidated 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 consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

As described in Management's Annual Report on Internal Control over Financial Reporting, management has excluded DH Publishing, L.P. ("EMI") from its assessment of internal control over financial reporting as of March 31, 2019, because it was acquired by the Company in a purchase business combination during the year ended March 31, 2019. We have also excluded EMI from our audit of internal control over financial reporting. EMI is a wholly-owned subsidiary whose total assets, and total sales and operating revenue excluded from management's assessment and our audit of internal control over financial reporting each represent less than 1% of the related consolidated financial statement amounts as of and for the year ended March 31, 2019.

### 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 (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) 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 (iii) 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.

/s/ PricewaterhouseCoopers Aarata LLC Tokyo, Japan May 22, 2019

We have served as the Company's auditor since 2006.

# **Consolidated Balance Sheets**

March 31		
	Yen in	millions
	2018	2019
ASSETS		
Current assets:		
Cash and cash equivalents	1,586,329	1,470,073
Marketable securities	1,176,601	1,324,538
Notes and accounts receivable, trade and contract assets	1,061,442	1,091,242
Allowance for doubtful accounts	(48,663)	(25,440
Inventories	692,937	653,278
Other receivables	190,706	223,620
Prepaid expenses and other current assets	516,744	509,301
Total current assets	5,176,096	5,246,612
Film costs	327,645	409,005
Investments and advances:		
Affiliated companies	157,389	163,365
Securities investments and other	10,598,669	11,561,286
	10,756,058	11,724,651
Property, plant and equipment:		
Land	84,358	83,992
Buildings	655,434	664,157
Machinery and equipment	1,798,722	1,585,382
Construction in progress	38,295	39,208
	2,576,809	2,372,739
Less — Accumulated depreciation	1,837,339	1,595,686
	739,470	777,053
Other assets:		
Intangibles, net	527,168	917,966
Goodwill	530,492	768,552
Deferred insurance acquisition costs	586,670	595,265
Deferred income taxes	96,772	202,486
Other	325,167	339,996
	2,066,269	2,824,265
Total assets	19,065,538	20,981,586

# **Consolidated Balance Sheets (Continued)**

	Yen in 1	millions
	2018	2019
LIABILITIES		
Current liabilities:		
Short-term borrowings	496,093	618,618
Current portion of long-term debt	225,522	172,461
Notes and accounts payable, trade	468,550	492,124
Accounts payable, other and accrued expenses	1,514,433	1,693,048
Accrued income and other taxes	145,905	135,226
Deposits from customers in the banking business	2,159,246	2,302,314
Other	610,792	666,024
Total current liabilities	5,620,541	6,079,815
Long-term debt	623,451	568,372
Accrued pension and severance costs	394,504	384,232
Deferred income taxes	449,863	531,421
Future insurance policy benefits and other	5,221,772	5,642,671
Policyholders' account in the life insurance business	2,820,702	3,048,202
Other	278,338	281,382
Total liabilities	15,409,171	16,536,095
Redeemable noncontrolling interest	9,210	8,801
Commitments and contingent liabilities	J,210	0,001
EQUITY		
Sony Corporation's stockholders' equity:		
Common stock, no par value —		
2018 — Shares authorized: 3,600,000,000; shares issued: 1,266,552,149	865,678	
2019 — Shares authorized: 3,600,000,000; shares issued: 1,271,230,341		874,291
Additional paid-in capital	1,282,577	1,266,874
Retained earnings	1,440,387	2,320,586
Accumulated other comprehensive income —		
Unrealized gains on securities, net	126,191	135,035
Unrealized losses on derivative instruments, net	(1,242)	(19
Pension liability adjustment	(296,444)	(310,457
Foreign currency translation adjustments	(445,251)	(435,229
	(616,746)	(610,670
Treasury stock, at cost		
Common stock		
2018 — 1,127,101 shares	(4,530)	
2019 — 20,483,474 shares		(104,704
	2,967,366	3,746,377
		(00.21)
Noncontrolling interests	679,791	690,313
Noncontrolling interests  Total equity	679,791 3,647,157	4,436,690

**Consolidated Statements of Income** 

Fiscal year ended March 31		Yen in millions	S
	2017	2018	2019
Sales and operating revenue:			
Net sales	6,443,328	7,231,613	7,306,235
Financial services revenue	1,080,284	1,221,235	1,274,708
Other operating revenue	79,638	91,134	84,744
	7,603,250	8,543,982	8,665,687
Costs and expenses:			
Cost of sales	4,753,010	5,188,259	5,150,750
Selling, general and administrative	1,505,956	1,583,197	1,576,825
Financial services expenses	910,144	1,042,163	1,112,446
Other operating (income) expense, net	149,001	4,072	(71,568
	7,318,111	7,817,691	7,768,453
Equity in net income (loss) of affiliated companies	3,563	8,569	(2,999
Operating income	288,702	734,860	894,235
Other income:			
Interest and dividends	11,459	19,784	21,618
Gain on sale of securities investments, net	225	1,517	_
Gain on equity securities, net	_	_	118,677
Other	2,734	2,427	4,440
	14,418	23,728	144,735
Other expenses:			
Interest	14,544	13,566	12,467
Loss on devaluation of securities investments	7,629	4,955	_
Foreign exchange loss, net	22,181	30,634	11,279
Other	7,147	10,384	3,576
	51,501	59,539	27,322
Income before income taxes	251,619	699,049	1,011,648
Income taxes:			
Current	100,260	127,685	166,748
Deferred	23,798	24,085	(121,650
	124,058	151,770	45,098
Net income	127,561	547,279	966,550
Less — Net income attributable to noncontrolling interests	54,272	56,485	50,279
Net income attributable to Sony Corporation's stockholders	73,289	490,794	916,271
		Yen	
	2017	2018	2019
Per share data:			
Common stock			
Net income attributable to Sony Corporation's stockholders			
— Basic	58.07	388.32	723.41
— Diluted	56.89	379.75	707.74

**Consolidated Statements of Comprehensive Income** 

Fiscal year ended March 31

Yen in millions 2017 2018 2019 Net income 127,561 547,279 966,550 Other comprehensive income, net of tax — Unrealized gains (losses) on securities (30,293)1,070 33,285 Unrealized gains (losses) on derivative instruments 1,140 (1,184)1,223 Pension liability adjustment 63,232 12,390 (13,960)Foreign currency translation adjustments (17,988)(6,335)8,444 995,542 Total comprehensive income 143,652 553,220 Less — Comprehensive income attributable to noncontrolling interests 35,814 60,403 57,669 Comprehensive income attributable to Sony Corporation's stockholders 107,838 492,817 937,873

# **Consolidated Statements of Cash Flows**

Fiscal year ended March 31	J	7	
	2017	Yen in millions 2017 2018	
	2017	2010	2019
Cash flows from operating activities:	107.561	5.47. <b>0</b> 70	066.550
Net income	127,561	547,279	966,550
Adjustments to reconcile net income to net cash provided by operating			
activities —			
Depreciation and amortization, including amortization of deferred	227.040	261 444	274.026
insurance acquisition costs and contract costs	327,048	361,444	374,026
Amortization of film costs	297,505	359,274	348,493
Accrual for pension and severance costs, less payments	9,297	4,113	(33,631)
Other operating (income) expense, net	149,001	4,072	(71,568)
(Gain) loss on securities investments, net (other than financial services	<b>=</b> 40.4	2 420	(110.620)
business)	7,404	3,438	(118,630)
Gain on marketable securities and securities investments held in the	(55.540)	(45.440)	(66.000)
financial services business, net	(55,742)		
Deferred income taxes	23,798	24,085	(121,650)
Equity in net (income) loss of affiliated companies, net of dividends	4,409	(2,956)	7,947
Changes in assets and liabilities:			
(Increase) decrease in notes and accounts receivable, trade and contract			
assets	(37,529)		
(Increase) decrease in inventories	11,199	(51,508)	
Increase in film costs		(362,496)	
Increase (decrease) in notes and accounts payable, trade	(1,386)		
Increase (decrease) in accrued income and other taxes	26,701	29,181	(20,039)
Increase in future insurance policy benefits and other	433,803	495,419	544,179
Increase in deferred insurance acquisition costs	(93,234)		
Increase in marketable securities held in the life insurance business	(81,456)		
(Increase) decrease in other current assets	(21,402)		16,576
Increase in other current liabilities	79,114	151,805	56,723
Other	(67,382)	78,683	(110,153)
Net cash provided by operating activities	807,530	1,253,971	1,258,738
Cash flows from investing activities:			
Payments for purchases of fixed assets	(333,509)	(262,989)	(312,644)
Proceeds from sales of fixed assets	13,098	60,599	17,585
Payments for investments and advances by financial services business	(1,233,290)	(963,210)	(1,078,250)
Payments for investments and advances (other than financial services			
business)	(17,208)	(13,801)	(53,525)
Proceeds from sales or return of investments and collections of advances by			
financial services business	289,901	317,159	309,498
Proceeds from sales or return of investments and collections of advances			
(other than financial services business)	16,078	6,596	2,442
Payment for EMI Music Publishing acquisition, net of cash acquired	_	_	(244,197)
Proceeds from sales of businesses	3,262	44,624	_
Proceeds related to sales of Spotify Technology S.A. Shares	_	_	82,467
Other	6,646	(12,046)	(30,821)
Net cash used in investing activities	(1,255,022)	(823.068)	(1,307,445)
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# **Consolidated Statements of Cash Flows (Continued)**

	Y	Yen in millions		
	2017	2018	2019	
Cash flows from financing activities:				
Proceeds from issuance of long-term debt	254,695	125,092	94,351	
Payments of long-term debt	(261,299)	(44,561)	(382,671	
Increase in short-term borrowings, net	317,827	35,145	123,979	
Increase in deposits from customers in the financial services business, net	277,152	169,479	246,945	
Dividends paid	(25,301)	(28,490)	(38,067	
Payments for purchase of treasury stock	(114)	(198)	(100,177	
Payment for purchase of Nile Acquisition LLC shares from				
noncontrolling interests	_	_	(32,041	
Payment for purchase of Sony/ATV shares from noncontrolling interests	(76,565)	_		
Other	(34,093)	(10,011)	(35,203	
Net cash provided by (used in) financing activities	452,302	246,456	(122,884	
Effect of exchange rate changes on cash and cash equivalents, including restricted	(31,061)	(53,044)	52,465	
Net increase (decrease) in cash and cash equivalents, including restricted	(26,251)	624,315	(119,126	
Cash and cash equivalents, including restricted, at beginning of the fiscal year	994,875	968,624	1,592,939	
Cash and cash equivalents, including restricted, at end of the fiscal year	968,624	1,592,939	1,473,813	
Less — Restricted cash and cash equivalents, included in other current				
assets and other assets	8,482	6,610	3,740	
Cash and cash equivalents at end of the fiscal year	960,142	1,586,329	1,470,073	
Supplemental data:				
Cash paid during the fiscal year for —				
Income taxes	106,054	101,092	210,499	
Interest	13,877	12,169	10,882	
Non-cash investing and financing activities —				
Obtaining assets by entering into capital leases	8,457	21,762	32,541	

# Consolidated Statements of Changes in Stockholders' Equity

				Yen	in million	IS		
	Common stock	Additional paid-in capital		Accumulated other comprehensive income		Sony Corporation's stockholders' equity		Total equity
Balance at March 31, 2016	858,867	1,325,719	936,331	(653,318)	(4,259	2,463,340	661,070	3,124,410
Exercise of stock acquisition								
rights	1,778	1,778				3,556		3,556
Stock-based compensation		1,601				1,601		1,601
Comprehensive income:								
Net income			73,289			73,289	54,272	127,561
Other comprehensive income,								
net of tax —								
Unrealized losses on								
securities				(14,101)	)	(14,101	(16,192	(30,293)
Unrealized gains on								
derivative instruments				1,140		1,140		1,140
Pension liability adjustment				63,003		63,003	229	63,232
Foreign currency translation								
adjustments				(15,493)	)	(15,493	) (2,495	(17,988)
Total comprehensive income						107,838	35,814	143,652
Stock issue costs, net of tax		(30	)			(30	)	(30)
Dividends declared (20.00 yen								
per share)			(25,252			(25,252	(17,068	(42,320)
Purchase of treasury stock					(114	) (114	)	(114)
Reissuance of treasury stock		(10	)		38	28		28
Transactions with noncontrolling								
interests shareholders and other		(53,721	)			(53,721	(41,640	(95,361)
Balance at March 31, 2017	860,645	1,275,337	984,368	(618,769)	(4,335	) 2,497,246	638,176	3,135,422

# Consolidated Statements of Changes in Stockholders' Equity (Continued)

				Yen	in million	IS		
	Common stock	Additional paid-in capital	Retained earnings	Accumulated other comprehensive income	Treasury stock, at cost	Sony Corporation's stockholders' equity	Noncontrolling interests	Total equity
Balance at March 31, 2017	860,645	1,275,337	984,368	(618,769)	(4,335	2,497,246	638,176	3,135,422
Issuance of new shares	488	488				976		976
Exercise of stock acquisition								
rights	4,533	4,532				9,065		9,065
Conversion of convertible bonds	12	12				24		24
Stock-based compensation		3,160				3,160		3,160
Comprehensive income:								
Net income			490,794			490,794	56,485	547,279
Other comprehensive income,								
net of tax —								
Unrealized gains (losses) on								
securities				(444)	)	(444)	1,514	1,070
Unrealized losses on								
derivative instruments				(1,184)	)	(1,184)	)	(1,184)
Pension liability adjustment				12,292		12,292	98	12,390
Foreign currency translation								
adjustments				(8,641)	)	(8,641)	2,306	(6,335)
Total comprehensive income						492,817	60,403	553,220
Stock issue costs, net of tax		(879)				(879)	)	(879)
Dividends declared (27.50 yen								
per share)			(34,775)	)		(34,775)	(14,361	(49,136)
Purchase of treasury stock					(199	(199)	)	(199)
Reissuance of treasury stock		0			4	4		4
Transactions with noncontrolling								
interests shareholders and other		(73)				(73)	(4,427	(4,500)
Balance at March 31, 2018	865,678	1,282,577	1,440,387	(616,746)	(4,530	) 2,967,366	679,791	3,647,157

# Consolidated Statements of Changes in Stockholders' Equity (Continued)

		Yen in millions							
	Common stock	Additional paid-in capital	Retained earnings	Accumulated other comprehensive income	Treasury stock, at cost	Sony Corporation's stockholders' equity	Noncontrolling interests	Total equity	
Balance at March 31, 2018	865,678	1,282,577	1,440,387	(616,746)	(4,530)	2,967,366	679,791	3,647,157	
Cumulative effect of newly									
adopted ASUs			7,976	(15,526)	)	(7,550)	5,432	(2,118)	
Issuance of new shares	431	431				862		862	
Exercise of stock acquisition									
rights	8,174	8,174				16,348		16,348	
Conversion of convertible bonds	8	8				16		16	
Stock-based compensation		1,159				1,159		1,159	
Comprehensive income:									
Net income			916,271			916,271	50,279	966,550	
Other comprehensive income,									
net of tax —									
Unrealized gains on									
securities				24,370		24,370	8,915	33,285	
Unrealized gains on									
derivative instruments				1,223		1,223		1,223	
Pension liability adjustment				(14,013)	)	(14,013)	53	(13,960)	
Foreign currency translation									
adjustments				10,022		10,022	(1,578)	8,444	
Total comprehensive income						937,873	57,669	995,542	
Stock issue costs, net of tax		(147)				(147)	)	(147)	
Dividends declared (35.00 yen									
per share)			(44,048)	)		(44,048)	(28,961)	(73,009)	
Purchase of treasury stock					(100,177	(100,177)	)	(100,177)	
Reissuance of treasury stock		1			3	4		4	
Transactions with noncontrolling									
interests shareholders and other		(25,329)				(25,329)	(23,618)	(48,947)	
Balance at March 31, 2019	874,291	1,266,874	2,320,586	(610,670	(104,704)	3,746,377	690,313	4,436,690	

# **Index to Notes to Consolidated Financial Statements**

Sony Corporation and Consolidated Subsidiaries

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Sony Corporation and Consolidated Subsidiaries

### 1. Nature of operations

Sony Corporation and its consolidated subsidiaries (hereinafter collectively referred to as "Sony") are engaged in the development, design, production, manufacture, offer and sale of various kinds of electronic equipment, instruments and devices for consumer, professional and industrial markets such as network services, game hardware and software, televisions, audio and video recorders and players, still and video cameras, mobile phones, and semiconductors. Sony's primary manufacturing facilities are located in Asia including Japan. Sony also utilizes third-party contract manufacturers for certain products. Sony's products and services are marketed throughout the world by sales subsidiaries and unaffiliated distributors as well as direct sales and offers via the internet. Sony is engaged in the development, production, manufacture, and distribution of recorded music and the management and licensing of the words and music of songs as well as production and distribution of animation titles, including game applications based on the animation titles. Sony is also engaged in the production, acquisition and distribution of motion pictures and television programming and the operation of television and digital networks. Further, Sony is also engaged in various financial services businesses, including life and non-life insurance operations through its Japanese insurance subsidiaries and banking operations through a Japanese internet-based banking subsidiary.

### 2. Summary of significant accounting policies

The accompanying consolidated financial statements are presented in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP"). Certain adjustments and reclassifications have been incorporated in the accompanying consolidated financial statements to conform with U.S. GAAP. These adjustments were not recorded in the statutory books and records as Sony Corporation and its subsidiaries in Japan maintain their records and prepare their statutory financial statements in accordance with accounting principles generally accepted in Japan, while its foreign subsidiaries maintain their records and prepare their financial statements in conformity with accounting principles generally accepted in the countries of their domicile.

### (1) Significant accounting policies

### Basis of consolidation and accounting for investments in affiliated companies -

The consolidated financial statements include the accounts of Sony Corporation and its majority-owned subsidiary companies, general partnerships and other entities in which Sony has a controlling interest, and variable interest entities for which Sony is the primary beneficiary. All intercompany transactions and accounts are eliminated. Investments in business entities in which Sony does not have control, but has the ability to exercise significant influence over operating and financial policies, generally through 20-50% ownership, are accounted for under the equity method. In addition, investments in general partnerships in which Sony does not have a controlling interest and limited partnerships are also accounted for under the equity method if more than minor influence over the operation of the investee exists (generally through more than 3-5% ownership). When the interest in the partnership is so minor that Sony has no significant influence over the operation of the investee, the interest in the partnership is carried at fair value. Under the equity method, investments are stated at cost plus/minus Sony's portion of equity in undistributed earnings or losses. Sony's equity in current earnings or losses of such entities is reported net of income taxes and is included in operating income (loss) after the elimination of unrealized intercompany profits. If the value of an investment has declined and is judged to be other-than-temporary, the investment is written down to its estimated fair value.

On occasion, a consolidated subsidiary or an affiliated company accounted for by the equity method may issue its shares to third parties in either a public or private offering or upon conversion of convertible debt to common stock at amounts per share in excess of or less than Sony's average per share carrying value. With respect to such transactions, the resulting gains or losses arising from the change in ownership interest are recorded in earnings within the fiscal year in which the change in interest transactions occurs.

Gains or losses that result from a loss of a controlling financial interest in a subsidiary are recorded in earnings along with fair value remeasurement gains or losses on any retained investment in the entity, while a change in interest of a consolidated subsidiary that does not result in a change in control is accounted for as a capital transaction and no gains or losses are recorded in earnings.

The excess of the cost over the underlying net equity of investments in consolidated subsidiaries and affiliated companies accounted for on an equity basis is allocated to identifiable tangible and intangible assets and liabilities based on fair values at the date of acquisition. The unassigned residual value of the excess of the cost over Sony's underlying net equity is recognized as goodwill as a component of the investment balance.

### 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 disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. The most significant estimates include those used in determining the valuation of investment securities, valuation of inventories, fair values of long-lived assets, fair values of goodwill and other intangible assets, fair values of assets and liabilities assumed in business combinations, product warranty liability, pension and severance plans, valuation of deferred tax assets, uncertain tax positions, film costs, and insurance related liabilities. Actual results could significantly differ from those estimates.

### Translation of foreign currencies -

All asset and liability accounts of foreign subsidiaries and affiliates are translated into Japanese yen at appropriate fiscal year end exchange rates and all income and expense accounts are translated at exchange rates that approximate those rates prevailing at the time of the transactions. The resulting translation adjustments are accumulated as a component of accumulated other comprehensive income. Upon remeasurement of a previously held equity interest in accordance with the accounting guidance for business combinations achieved in stages, accumulated translation adjustments, if any, are included in earnings.

Monetary assets and liabilities denominated in foreign currencies are translated at appropriate fiscal year end exchange rates and the resulting translation gains or losses are recognized into income.

### Cash, cash equivalents and restricted cash -

Cash and cash equivalents include all highly liquid investments, with original maturities of three months or less, that are readily convertible to known amounts of cash and are so near maturity that they present insignificant risk of changes in value because of changes in interest rates. Sony includes restricted cash within cash and cash equivalents in the statement of cash flows.

### Marketable debt and equity securities -

Debt securities designated as available-for-sale are carried at fair value with unrealized gains or losses included as a component of accumulated other comprehensive income, net of applicable taxes. Equity securities, and debt securities classified as trading securities, are carried at fair value with unrealized gains or losses included in income. Debt securities that are expected to be held-to-maturity are carried at amortized cost. Individual securities classified as either available-for-sale or held-to-maturity are reduced to fair value by a charge to income when an other-than-temporary impairment is recognized. Realized gains and losses are determined on the average cost method and are reflected in income.

Sony regularly evaluates its investment portfolio to identify other-than-temporary impairments of individual debt securities. Factors that are considered by Sony in determining whether an other-than-temporary decline in value has occurred include: the length of time and extent to which the market value of the security has been less than its original cost, the financial condition, operating results, business plans and estimated future cash flows of the issuer of the security, other specific factors affecting the market value, deterioration of the credit condition of the issuer, sovereign risk, and whether or not Sony is able to retain the investment for a period of time sufficient to allow for the anticipated recovery in market value.

In evaluating the factors for debt securities designated as available-for-sale, Sony presumes a decline in value to be other-than-temporary if the fair value of the security is 20 percent or more below its original cost for an extended period of time (generally for a period of up to six months). This criterion is employed as a threshold to identify securities which may have a decline in value that is other-than-temporary. The presumption of an other-than-temporary impairment in such cases may be overcome if there is evidence to support that the decline

is temporary in nature due to the existence of other factors which overcome the duration or magnitude of the decline. On the other hand, there may be cases where impairment losses are recognized when the decline in the fair value of the security is not more than 20 percent or such decline has not existed for an extended period of time, as a result of considering specific factors which may indicate that the decline in the fair value is other-than-temporary.

When an other-than-temporary impairment of a held-to-maturity debt security has occurred, the amount of the other-than-temporary impairment recognized in income depends on whether Sony intends to sell the debt security or more likely than not will be required to sell the debt security before recovery of its amortized cost. If the debt security meets either of these two criteria, the other-than-temporary impairment is recognized in income, measured as the entire difference between the security's amortized cost and its fair value at the impairment measurement date. For other-than-temporary impairment of the debt security that does not meet these two criteria, the net amount recognized in income is a credit loss, which equals the difference between the amortized cost of the debt security and its net present value calculated by discounting Sony's best estimate of projected future cash flows at the effective interest rate implicit in the debt security prior to impairment. Any difference between the fair value and the net present value of the debt security at the impairment measurement date is recorded in accumulated other comprehensive income. Unrealized gains or losses on securities for which an other-than-temporary impairment has been recognized in income are presented as a separate component of accumulated other comprehensive income.

### Equity securities that do not have readily determinable fair values -

Equity securities that do not have readily determinable fair values are measured at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment in the same issuer. If the value of equity securities that do not have readily determinable fair values is estimated to have declined and such decline is judged to be other-than-temporary, Sony recognizes the impairment of the investment and the carrying value is reduced to its fair value. Determination of impairment is based on the consideration of several factors, including operating results, business plans and estimated future cash flows. Fair value is determined through the use of various methodologies such as discounted cash flows, valuation of recent financings and comparable valuations of similar companies.

### Allowance for doubtful accounts -

Sony maintains an allowance for doubtful accounts to reserve for potentially uncollectible receivables. Sony reviews accounts receivable by amounts due from customers which are past due to identify specific customers with known disputes or collectability issues. In determining the amount of the reserve, Sony makes judgments about the creditworthiness of customers based on past collection experience and ongoing credit risk evaluations.

### Inventories -

Inventories in the Game & Network Services ("G&NS"), Music, Home Entertainment & Sound ("HE&S"), Imaging Products & Solutions ("IP&S"), Mobile Communications ("MC") and Semiconductors segments as well as non-film inventories for the Pictures segment are valued at cost, not in excess of the net realizable value – i.e., estimated selling price in the ordinary course of business less reasonably predictable costs of completion and disposal, cost being determined on the "average cost" basis, except for the cost of finished products carried by certain subsidiary companies which is determined on the "first-in, first-out" basis.

### Other receivables -

Other receivables include receivables which relate to arrangements with certain component manufacturers whereby Sony procures goods, including product components, for these component manufacturers and is reimbursed for the related purchases. No revenue or profit is recognized on these transfers. Sony will repurchase the inventory at a later date from the component manufacturers as either finished goods inventory or as partially assembled product.

### Film costs -

Film costs include direct production costs, production overhead and acquisition costs for both motion picture and television productions and are stated at the lower of unamortized cost or estimated fair value and classified as noncurrent assets. Film costs are amortized, and the estimated liabilities for residuals and

participations are accrued using an individual-film-forecast method based on the ratio of current period actual revenues to the estimated remaining total revenues. Film costs also include broadcasting rights, which are recognized when the license period begins and the program is available for use, and consist of acquired programming to be aired on Sony's worldwide channel network. Broadcasting rights are stated at the lower of unamortized cost or net realizable value, classified as either current or noncurrent assets based on timing of expected use. Broadcasting rights are amortized based on estimated usage or on a straight-line basis over the useful life, as appropriate, although broadcasting rights licensed under multi-year live-event sports programming agreements are generally amortized based on the ratio of the current period's actual advertising revenue and an allocation of subscription fee revenue to the estimated total remaining attributable revenues. Estimates used in calculating the fair value of film costs and the net realizable value of broadcasting rights are based upon assumptions about future demand and market conditions and are reviewed on a periodic basis.

### Property, plant and equipment and depreciation -

Property, plant and equipment are stated at cost. Depreciation is computed using the straight-line method. Useful lives for depreciation range from two to 50 years for buildings and from two to 10 years for machinery and equipment. Significant renewals and additions are capitalized at cost. Maintenance and repairs, and minor renewals and betterments are charged to income as incurred.

### Goodwill and other intangible assets -

Goodwill and indefinite lived intangible assets are tested annually for impairment during the fourth quarter of the fiscal year and between annual tests if an event occurs or circumstances change that would more likely than not reduce the fair value below its carrying amount. Such an event or change in circumstances would include unfavorable variances from established business plans, significant changes in forecasted results or volatility inherent to external markets and industries, which are periodically reviewed by Sony's management.

In the fiscal year ended March 31, 2019, Sony elected not to perform an optional qualitative assessment of goodwill and instead proceeded directly to a quantitative impairment test by comparing the fair value of a reporting unit with its carrying amount. Reporting units are Sony's operating segments or one level below the operating segments. If the fair value of a reporting unit exceeds its carrying amount, goodwill of the reporting unit is not considered impaired. If the carrying amount of a reporting unit exceeds its fair value, an impairment loss is recognized in an amount equal to that excess, not to exceed the total amount of goodwill allocated to the reporting unit. Indefinite lived intangible assets are tested for impairment by comparing the fair value of the intangible asset with its carrying value, and if the carrying value of the intangible asset exceeds its fair value, an impairment loss is recognized in an amount equal to that excess.

The fair value of a reporting unit or indefinite lived intangible asset is generally determined using a discounted cash flow analysis. This approach uses significant estimates and assumptions, including projected future cash flows, the timing of such cash flows, discount rates reflecting the risk inherent in future cash flows, perpetual growth rates, earnings multiples, the determination of appropriate comparable entities and the determination of whether a premium or discount should be applied to comparables. Consideration is also given to Sony's market capitalization in relation to the sum of the calculated fair values of the reporting units, including reporting units with no goodwill, and taking into account corporate level assets and liabilities not assigned to individual reporting units as well as a reasonable control premium.

The assumptions used for projected future cash flows and the timing of such cash flows are based on the forecast and mid-range plan ("MRP") of each reporting unit and take into account such factors as historical experience, market and industry information, and current and forecasted economic conditions. Perpetual growth rates are utilized to determine a terminal cash flow value and are generally set after the three-year forecasted period for the MRP. Certain reporting units, such as those in the Pictures segment, utilize longer forecast periods and base the terminal value on an exit price using an earnings multiple applied to the final year of the forecasted earnings, which also takes into consideration a control premium. Discount rates are derived from the weighted average cost of capital of market participants in similar businesses.

When a business within a reporting unit is disposed of, goodwill is allocated to the disposed business using the relative fair value method.

Intangible assets with finite useful lives mainly consist of patent rights, know-how, license agreements, customer relationships, trademarks, software to be sold, leased or otherwise marketed, internal-use software,

music catalogs, artist contracts, and television carriage contracts (broadcasting agreements). Patent rights, know-how, license agreements, trademarks, software to be sold, leased or otherwise marketed, and internal-use software are generally amortized on a straight-line basis over three to 10 years. Customer relationships, music catalogs, artist contracts and television carriage contracts (broadcasting agreements) are amortized on a straight-line basis, generally, over 10 to 44 years.

### Capitalized software -

The costs related to establishing the technological feasibility of software to be sold, leased or otherwise marketed are expensed as incurred as a part of research and development in cost of sales. Costs that are incurred to produce the finished product after technological feasibility is established are capitalized and amortized to cost of sales over the estimated economic life, which is generally three years. The technological feasibility of game software is established when the product master is completed. Consideration to capitalize game software development costs before this point is limited to the development costs of games for which technological feasibility can be proven at an earlier stage. At each balance sheet date, Sony performs reviews to ensure that unamortized capitalized software costs remain recoverable from future profits of the related software products.

The costs incurred for internal-use software during the application development stage are capitalized and amortized, mainly to selling, general and administrative expenses, on a straight-line basis over the estimated useful life. Costs related to the preliminary project stage and post implementation activities are expensed as incurred.

### Deferred insurance acquisition costs -

Costs that vary with and are directly related to acquiring new insurance policies are deferred as long as they are recoverable. The deferred insurance acquisition costs include such items as commissions, medical examination costs and inspection report fees, and are subject to recoverability testing at least annually to ensure that the capitalized amounts do not exceed the present value of anticipated gross profits or premiums less benefits and maintenance expenses, as applicable. The deferred insurance acquisition costs for traditional life insurance contracts are amortized over the premium-paying period of the related insurance policies using assumptions consistent with those used in computing policy reserves. The deferred insurance acquisition costs for non-traditional life insurance contracts are amortized over the expected life in proportion to the estimated gross profits.

### Product warranty -

Sony provides for the estimated cost of product warranties at the time revenue is recognized. The product warranty is calculated based upon product sales, estimated probability of failure and estimated cost per claim. The variables used in the calculation of the provision are reviewed on a periodic basis.

### Future insurance policy benefits -

Liabilities for future insurance policy benefits are primarily comprised of the present value of estimated future payments to policyholders. These liabilities are computed by the net level premium method based upon the assumptions as to future investment yield, morbidity, mortality, withdrawals and other factors. These assumptions are reviewed on a periodic basis. Liabilities for future insurance policy benefits also include liabilities for guaranteed benefits related to certain non-traditional life and annuity contracts.

### Policyholders' account in the life insurance business -

Liabilities for policyholders' account in the life insurance business represent the contract value that has accrued to the benefit of the policyholders as of the balance sheet date. This liability is generally equal to the accumulated account deposits, plus interest credited, less policyholder withdrawals and other charges assessed against the account balances.

### Impairment of long-lived assets -

Sony reviews the recoverability of the carrying value of its long-lived assets held and used, other than goodwill and intangible assets with indefinite lives, and assets to be disposed of, whenever events or changes in circumstances indicate that the individual carrying amount of an asset or asset group may not be recoverable.

Long-lived assets to be held and used are reviewed for impairment by comparing the carrying value of the asset or asset group with their estimated undiscounted future cash flows. If the cash flows are determined to be less than the carrying value of the asset or asset group, an impairment loss would be recognized during the period for the amount by which the carrying value of the asset or asset group exceeds estimated fair value. Long-lived assets that are to be disposed of other than by sale are considered held and used until they are disposed of. Long-lived assets that are to be disposed of by sale are reported at the lower of their carrying value or fair value less cost to sell and are not depreciated. Fair value is determined using the present value of estimated net cash flows or comparable market values. This approach uses significant estimates and assumptions including projected future cash flows, the timing of such cash flows, discount rates reflecting the risk inherent in future cash flows, perpetual growth rates applied to determine terminal values, determination of appropriate market comparables and the determination of whether a premium or discount should be applied to comparables.

### Fair value measurement -

Sony measures fair value as an exit price, or the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants as of the measurement date. Sony has elected the fair value option in the banking business for certain foreign securities. The election was made to mitigate accounting mismatches related to fluctuations of foreign exchange rates by allowing the gains and losses on the translation of these securities to be included in current earnings.

The accounting guidance for fair value measurements specifies a hierarchy of inputs to valuation techniques based on the extent to which inputs used in measuring fair value are observable in the market. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect Sony's assumptions about the assumptions that market participants would use in pricing the asset or liability. Observable market data is used if such data is available without undue cost and effort. Each fair value measurement is reported in one of three levels which is determined by the lowest level input that is significant to the fair value measurement in its entirety.

### These levels are:

- Level 1 Inputs are unadjusted quoted prices for identical assets and liabilities in active markets.
- Level 2 Inputs are based on observable inputs other than level 1 prices, such as quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active and model-derived valuations, in which all significant inputs are observable in active markets.
- Level 3 One or more significant inputs are unobservable.

When available, Sony uses unadjusted quoted market prices in active markets to measure fair value and classifies such items within level 1. If quoted market prices are not available, fair value is based upon internally developed valuation techniques that use, where possible, current market-based or independently sourced market parameters, such as interest rates, currency rates and option volatilities. Items valued using internally generated models are classified according to the lowest level input that is significant to the valuation. For certain financial assets and liabilities, Sony determines fair value using third-party information such as indicative quotes from dealers and quantitative input from investment advisors following Sony's established valuation procedures including validation against internally developed prices. Additionally, Sony considers both counterparty credit risk and Sony's own creditworthiness in determining fair value. Sony attempts to mitigate credit risk to third parties by entering into netting agreements and actively monitoring the creditworthiness of counterparties and its exposure to credit risk through the use of credit limits and by selecting major international banks and financial institutions as counterparties.

Transfers between levels are deemed to have occurred at the beginning of the interim period in which the transfers occur.

### Derivative financial instruments -

All derivatives are recognized as either assets or liabilities in the consolidated balance sheets at fair value on a gross basis. Changes in the fair value of derivative financial instruments are either recognized periodically in income or stockholders' equity (as a component of accumulated other comprehensive income), depending on whether the derivative financial instrument qualifies as a hedge and the derivative is being used to hedge changes in fair value or cash flows.

The accounting guidance for hybrid financial instruments permits an entity to elect fair value remeasurement for any hybrid financial instrument if the hybrid instrument contains an embedded derivative that would otherwise be required to be bifurcated and accounted for separately under accounting guidance for derivative instruments and hedging activities. The election to measure the hybrid instrument at fair value is made on an instrument-by-instrument basis and is irreversible. Certain subsidiaries in the Financial Services segment had hybrid financial instruments, disclosed in Note 7 as debt securities, that contain embedded derivatives where the entire instrument was carried at fair value.

In accordance with accounting guidance for derivative instruments and hedging activities, various derivative financial instruments held by Sony are classified and accounted for as described below.

### Fair value hedges

Changes in the fair value of derivatives designated and effective as fair value hedges for recognized assets or liabilities or unrecognized firm commitments are recognized in earnings as offsets to changes in the fair value of the related hedged assets or liabilities.

### Cash flow hedges

Changes in the fair value of derivatives designated and effective as cash flow hedges for forecasted transactions or exposures associated with recognized assets or liabilities are initially recorded in other comprehensive income and reclassified into earnings when the hedged transaction affects earnings. Changes in the fair value of the ineffective portion are recognized immediately in earnings.

### Derivatives not designated as hedges

Changes in the fair value of derivatives that are not designated as hedges are recognized immediately in earnings.

### Assessment of hedges

When applying hedge accounting, Sony formally documents all hedging relationships between the derivatives designated as hedges and the hedged items, as well as its risk management objectives and strategies for undertaking various hedging activities. Sony links all hedges that are designated as fair value or cash flow hedges to specific assets or liabilities on the consolidated balance sheets or to the specific forecasted transactions. Sony also assesses, both at the inception of the hedge and on an on-going basis, whether the derivatives that are designated as hedges are highly effective in offsetting changes in fair value or cash flows of hedged items. When it is determined that a derivative is not highly effective as a hedge, Sony discontinues hedge accounting. Hedge ineffectiveness, if any, is included immediately in earnings.

### Stock-based compensation -

Sony accounts for stock-based compensation using the fair value based method, measured on the date of grant using the Black-Scholes option-pricing model. The expense is mainly included in selling, general and administrative expenses. Stock-based compensation is recognized, net of an estimated forfeiture rate, over the requisite service period using the accelerated method of amortization for grants with graded vesting. The estimated forfeiture rate is based on Sony's historical experience in the stock acquisition rights plans where the majority of the vesting terms have been satisfied.

### Revenue recognition -

Sony recognizes revenue in an amount that reflects the consideration Sony expects in exchange for satisfying performance obligations to transfer the goods or services promised in contracts with customers. This is in accordance with the following steps:

- Step 1: Identify the contract(s) with a customer.
- Step 2: Identify the performance obligations in the contract.
- Step 3: Determine the transaction price.
- Step 4: Allocate the transaction price to the performance obligations in the contract.
- Step 5: Recognize revenue when (or as) Sony satisfies a performance obligation.

Sony owns a variety of intellectual property throughout segments and recognizes revenue through the licensing of such intellectual property. Sony has both functional and symbolic intellectual property. The licensing of functional intellectual property grants a customer a right to use Sony's intellectual property as it exists at a point in time, and Sony satisfies its performance obligation at the point in time when the customer obtains control and is entitled to benefit from the license. The licensing of symbolic intellectual property grants a customer a right to access Sony's intellectual property over time, and Sony satisfies its performance obligation over the license period as Sony maintains the intellectual property.

Incremental costs of obtaining a contract and costs to fulfill a contract are recognized as assets when Sony expects to recover these costs. The incremental costs of obtaining a contract are those costs that would not have been incurred if the contract had not been obtained. Costs to fulfill a contract are those costs that are directly related to a contract or to an anticipated contract and that generate or enhance resources for Sony to satisfy its performance obligations. Sony applies a practical expedient and recognizes the incremental costs of obtaining a contract as an expense when incurred if the amortization period of the asset that would have been recognized is one year or less.

Revenues from sales in the HE&S, IP&S, MC and Semiconductors segments are recognized when (or as) performance obligations in contracts with customers are satisfied by transferring control over a promised good or service to a customer. If the sales contract contains a customer acceptance provision, then revenues are recognized after customer acceptance occurs or the acceptance provisions lapse. Revenues are recognized net of anticipated returns and sales incentives.

Within the G&NS segment, revenues from hardware, peripherals and software discs are recognized when performance obligations are satisfied by transferring control to the retailer/distributor, net of anticipated returns, sales incentives and cooperative advertising obligations. Revenues from platform licensing to publishers are recognized when physical software discs are delivered. Revenues from digital game content, which is licensed functional intellectual property, are recognized when the digital content is made available for use by the licensee via an online platform, net of anticipated sales incentives and credit card chargebacks. Revenues from digital game content involving multiple performance obligations, such as obligations to make content available on future dates, are allocated to each performance obligation based on the relative standalone selling prices that are observable in the market or Sony's best estimate. Revenues from subscription fees for digital subscription services are recognized over the subscription period.

Within the Music segment, Sony licenses intellectual property that transfer to a customer either a right to use Sony's intellectual property as it exists at the point in time in which the license is granted, or a right to access Sony's intellectual property as it exists throughout the license period. Revenues are recognized when the customer has the right to use or access the intellectual property and obtains control of the use or access of that license. Digital revenues include revenues from contracts with digital streaming services typically recognized as a single performance obligation, which is ongoing access to intellectual property in an evolving library of content over the contract term, predicated on: (1) the business practice and contractual ability to remove specific content without a requirement to replace the content and without impact to minimum royalty guarantees and (2) the contracts not containing a specific listing of content subject to the license. For these contracts, revenues are recognized on the basis of sales and usage royalties, except where there is an amount of a minimum royalty guarantee that is not expected to be recouped, or a fixed fee, which is recognized on a straight-line basis over the term of the contract. Revenues from the sale of physical product such as CDs, net of anticipated returns and sales incentives, are recognized when delivery has occurred and the product is available for sale to the public.

Within the Pictures segment, revenues from the theatrical exhibition of motion pictures are recognized as the customer exhibits the film. Revenues from the licensing of motion picture and television programming for pay and free television exhibition and other markets are recognized when the product is available for use by the licensee. Revenues for motion picture and television program licensing arrangements involving multiple performance obligations, for example a fee for multiple titles, territories or availability dates, are allocated based on the relative standalone selling price of each performance obligation using Sony's best estimate based on available information such as market conditions and internal pricing guidelines. Each individual motion picture or television programming product delivered generally represents a separate performance obligation. Licensing revenue associated with certain renewals or extensions of existing agreements for motion pictures and television programming is recognized when the licensee can use and benefit from the content under the renewal or extension. Licensing revenue associated with minimum guarantees for symbolic intellectual property is recognized ratably over the license term. For home entertainment distribution, revenues from the sale of physical

product such as DVDs and Blu-ray Disc<sup>TM</sup>, net of anticipated returns and sales incentives, are recognized when delivery has occurred and the product is available for sale to the public. Revenues from electronic sell-through and video-on-demand are recognized when the product is made available for viewing via digital distribution platforms. Revenues from the sale of broadcast advertising are recognized when the advertisement is aired, and the performance obligation in these arrangements is the delivery of advertising spots and may include a guaranteed amount of impressions. When a guarantee for a number of impressions is not achieved, revenues are not recognized until additional advertising spots are delivered to provide the guaranteed impressions. Revenues from subscription fees received by television networks are recognized when the service is provided. The performance obligation under network subscription arrangements is a license of functional intellectual property that is satisfied as programming is provided over the term of the arrangement.

Traditional life insurance policies that the life insurance subsidiary underwrites, most of which are categorized as long-duration contracts, mainly consist of whole life, term life and accident and health insurance contracts. Premiums from these policies are reported as revenue when due from policyholders.

Amounts received as payment for non-traditional contracts such as interest sensitive whole life contracts, individual annuity contracts and other contracts without life contingencies are recognized in policyholders' account in the life insurance business. Revenues from these contracts are comprised of fees earned for administrative and contract-holder services, which are recognized over the period of the contracts, and included in financial services revenue.

Property and casualty insurance policies that the non-life insurance subsidiary underwrites are primarily automotive insurance contracts which are categorized as short-duration contracts. Premiums from these policies are reported as revenue over the period of the contract in proportion to the amount of insurance protection provided.

Revenue is recognized net of any taxes collected from customers and subsequently remitted to governmental authorities.

As of April 1, 2018, Sony adopted the new accounting standard related to the recognition of revenue in contracts with customers on a modified retrospective basis, and therefore comparative information has not been restated. The adoption of the new standard did not have a material impact on Sony's results of operations and financial position. Refer to Note 2 (2) Recently adopted accounting pronouncements.

### Cost of sales -

Costs classified as cost of sales relate to the producing and manufacturing of products and include items such as material cost, subcontractor cost, depreciation of fixed assets, amortization of intangible assets, personnel expenses, research and development costs, and amortization of film costs related to motion picture and television productions.

### Research and development costs -

Research and development costs, included in cost of sales, include items such as salaries, personnel expenses and other direct and indirect expenses associated with research and product development. Research and development costs are expensed as incurred.

### Selling, general and administrative -

Costs classified as selling expenses relate to promoting and selling products and include items such as advertising, promotion, shipping and warranty expenses. General and administrative expenses include operating items such as officers' salaries, personnel expenses, depreciation of fixed assets, office rental for sales, marketing and administrative divisions, a provision for doubtful accounts and amortization of intangible assets.

### Financial services expenses -

Financial services expenses include a provision for policy reserves and amortization of deferred insurance acquisition costs, and all other operating costs, such as personnel expenses, depreciation of fixed assets, and office rental of subsidiaries, in the Financial Services segment.

### Advertising costs -

Advertising costs are expensed when the advertisement or commercial appears in the selected media.

### Shipping and handling costs -

The majority of shipping and handling, warehousing and internal transfer costs for finished goods are included in selling, general and administrative expenses. An exception to this is in the Pictures segment where such costs are charged to cost of sales as they are an integral part of producing and distributing motion pictures and television programming. All other costs related to Sony's distribution network are included in cost of sales, including inbound freight charges, purchasing and receiving costs, inspection costs and warehousing costs for raw materials and in-process inventory. Shipping and handling activities that occur after control of the related good transfers are treated as separate performance obligations. Amounts paid by customers for shipping and handling costs are included in net sales.

### Income taxes -

The provision for income taxes is computed based on the pretax income included in the consolidated statements of income, and the tax liability attributed to undistributed earnings of subsidiaries and affiliated companies accounted for by the equity method expected to be remitted in the foreseeable future. The asset and liability approach is used to recognize deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the carrying amounts and the tax bases of assets and liabilities.

Carrying amounts of deferred tax assets require a reduction by a valuation allowance if, based on the available evidence, it is more likely than not that such assets will not be realized. Accordingly, the need to establish valuation allowances for deferred tax assets is assessed periodically with appropriate consideration given to all positive and negative evidence related to the realization of the deferred tax assets. Management's judgments related to this assessment consider, among other matters, the nature, frequency and severity of current and cumulative losses on an individual tax jurisdiction basis, forecasts of future profitability after consideration of uncertain tax positions, excess of appreciated asset value over the tax basis of net assets, the duration of statutory carryforward periods, the past utilization of net operating loss carryforwards prior to expiration, as well as prudent and feasible tax planning strategies which would be employed by Sony to prevent net operating loss and tax credit carryforwards from expiring unutilized.

Sony records assets and liabilities for unrecognized tax benefits resulting from uncertain tax positions taken or expected to be taken in a tax return. Sony continues to recognize interest and penalties, if any, with respect to income taxes, including unrecognized tax benefits, as interest expense and as income tax expense, respectively, in the consolidated statements of income. The amount of income taxes Sony pays is subject to ongoing audits by various taxing authorities, which may result in proposed assessments. In addition, several significant items related to intercompany transfer pricing are currently the subject of negotiations between taxing authorities in different jurisdictions as a result of pending advance pricing agreement applications and competent authority requests. Sony's estimate for the potential outcome for any uncertain tax issues is judgmental and requires significant estimates. Sony assesses its income tax positions and records tax benefits for all years subject to examinations based upon the evaluation of the facts, circumstances and information available at that reporting date. For those tax positions for which it is more likely than not that a tax benefit will be sustained, Sony records the amount that has a greater than 50% likelihood of being realized upon settlement with a taxing authority that has full knowledge of all relevant information. If Sony does not believe that it is more likely than not that a tax benefit will be sustained, no tax benefit is recognized. However, Sony's future results may include favorable or unfavorable adjustments to Sony's estimated tax liabilities due to closure of income tax examinations, the outcome of negotiations between taxing authorities in different jurisdictions, new regulatory or judicial pronouncements or other relevant events. As a result, the amount of unrecognized tax benefits, and the effective tax rate, may fluctuate significantly.

The impact of the U.S. Tax Cuts and Jobs Act of 2017 (the "U.S. Tax Reform Act") was recorded on a provisional basis as defined in Staff Accounting Bulletin No. 118 ("SAB 118") in the fiscal year ended March 31, 2018. Additional guidance was issued by the U.S. Department of the Treasury on several provisions including the computation of the transition tax on historic foreign earnings. Further analysis was performed and conclusions reached as part of the tax return filing process. Sony completed its accounting analysis and no material difference to the provisional amount was recorded in the fiscal year ended March 31, 2019.

The U.S. Tax Reform Act subjects a U.S. entity to tax on Global Intangible Low Tax Income ("GILTI") earned by its foreign subsidiaries. Sony has elected to account for GILTI as a current period expense when incurred.

### Net income (loss) attributable to Sony Corporation's stockholders per share ("EPS") -

Basic EPS is computed based on the weighted-average number of shares of common stock outstanding during each period. The computation of diluted EPS reflects the maximum possible dilution from conversion, exercise, or contingent issuance of securities. All potentially dilutive securities are excluded from the calculation in a situation where there is a net loss attributable to Sony Corporation's stockholders.

### (2) Recently adopted accounting pronouncements

### Revenue from contracts with customers -

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2014-09 addressing revenue recognition which superseded the previous revenue recognition requirements, including most industry-specific guidance. This ASU requires an entity to recognize revenue when it transfers promised goods or services 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 ASU was effective for Sony as of April 1, 2018, and has been applied on a modified retrospective basis. Sony applied this ASU to all open contracts existing as of April 1, 2018, recognizing in beginning retained earnings an adjustment for the cumulative effect of the change.

Although the adoption of this ASU did not have a material impact on Sony's results of operations and financial position, there are several areas where Sony's revenue recognition changed as compared with historical U.S. GAAP. The more significant of these areas are as follows:

In the Pictures segment, (1) licensing revenue associated with certain renewals or extensions of existing agreements for motion pictures and television programming is recognized at a later point in time, which is when the licensee can use and benefit from the content, instead of when the agreement is renewed or extended, and (2) licensing revenue associated with minimum guarantees for symbolic intellectual property (e.g., brands, trademarks and logos) is recognized over the license term instead of at the inception of the license term.

In the MC segment, the incremental costs of obtaining contracts for the internet-related service business are recognized as assets and amortized to expense over the contract period.

In addition, the ASU changed the presentation of certain items in the consolidated financial statements, such as sales returns, with no impact to the timing of the recognition of revenue or expense.

The following chart illustrates the amounts by which each summarized income statement line item was affected by the adoption of this ASU:

	Fiscal	Yen in millions Fiscal year ended March 31, 2019					
	As Reported	Adjustments of ASU 2014-09	Without Adoption of ASU 2014-09				
Sales and operating revenue	8,665,687	(11,570)	8,677,257				
Costs of sales	5,150,750	(19,018)	5,169,768				
Selling, general and administrative	1,576,825	1,366	1,575,459				
Others	1,043,877		1,043,877				
Operating income	894,235	6,082	888,153				

### Recognition and measurement of financial assets and financial liabilities -

In January 2016, the FASB issued ASU 2016-01 amending various aspects of the recognition, measurement, presentation, and disclosure requirements for financial instruments. The changes mainly relate to the requirement to measure equity investments in unconsolidated subsidiaries, other than those accounted for under the equity method of accounting, at fair value with changes in fair value recognized in earnings. However, this ASU permits entities to elect to measure equity investments that do not have readily determinable fair values at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer. This ASU was effective for Sony as of April 1, 2018. As a result of the adoption of this ASU, Sony reclassified 15,526 million yen in unrealized gains and losses, net of tax, on equity securities previously classified as available-for-sale, from accumulated other comprehensive income to retained earnings. In addition, changes in value due to the revaluation of equity securities held in the Financial

Services segment at the end of the period are recorded in financial services revenue, and changes in value due to the revaluation of equity securities held in all segments other than the Financial Services segment are recorded in gain on equity securities, net in the consolidated statement of income.

### Intra-entity transfers of assets other than inventory -

In October 2016, the FASB issued ASU 2016-16, which amends the accounting for income taxes. This update requires recognition of the income tax consequences of an intra-entity transfer of assets other than inventory when the transfer occurs. Under historical U.S. GAAP, the income tax consequences for asset transfers other than inventory could not be recognized until the asset was sold to a third party. This ASU is required to be applied on a modified retrospective basis through a cumulative-effect adjustment to retained earnings as of the beginning of the period of adoption. This ASU was effective for Sony as of April 1, 2018. The adoption of this ASU did not have a material impact on Sony's results of operations and financial position.

Von in millions

Changes to the opening balances resulting from the adoption of the above ASUs were as follows:

		Yen in millions				
	March 31,	In	npact of Adoptic	on	April 1,	
	2018	ASU 2014-09	ASU 2016-01	ASU 2016-16	2018	
ASSETS						
Current assets:						
Notes and accounts receivable, trade	1,061,442	(2,993)	_	_	1,058,449	
Allowance for doubtful accounts and sales						
returns*	(48,663)	25,114	_	_	(23,549)	
Inventories	692,937	(12,404)			680,533	
Other receivables	190,706	9,628	_	_	200,334	
Prepaid expenses and other current assets	516,744	(5,520)			511,224	
Film costs	327,645	7,647			335,292	
Other assets:						
Deferred income taxes	96,772	(326)	_	_	96,446	
Other	325,167	1,068			326,235	
Total assets	19,065,538	22,214			19,087,752	
LIABILITIES						
Current liabilities:						
Accounts payable, other and accrued						
expenses	1,514,433	(3,290)	_	_	1,511,143	
Other*	610,792	31,777			642,569	
Deferred income taxes	449,863	_	_	(14,680)	435,183	
Other	278,338	10,525			288,863	
Total liabilities	15,409,171	39,012		(14,680)	15,433,503	
EQUITY						
Retained earnings	1,440,387	(16,798)	15,526	9,248	1,448,363	
Unrealized gains on securities, net	126,191	_	(15,526)	_	110,665	
Noncontrolling interests	679,791			5,432	685,223	
<b>Total equity</b>	3,647,157	(16,798)		14,680	3,645,039	
Total liabilities and equity	19,065,538	22,214			19,087,752	

<sup>\*</sup> Under ASU 2014-09, Sony presents sales returns as a liability instead of as a contra-asset allowance. Accordingly, Sony changed the presentation from "Allowance for doubtful accounts and sales returns" to "Allowance for doubtful accounts" on the consolidated balance sheet.

### Classification of certain cash receipts and cash payments -

In August 2016, the FASB issued ASU 2016-15, which clarifies the classification of certain cash receipts and cash payments in the statement of cash flows. This ASU was effective for Sony as of April 1, 2018. The adoption of this ASU did not have a material impact on Sony's results of operations and financial position.

### Restricted cash -

In November 2016, the FASB issued ASU 2016-18, which requires that restricted cash and restricted cash equivalents be included with cash and cash equivalents in the statement of cash flows. This ASU also requires entities to disclose how the statement of cash flows that includes restricted cash and restricted cash equivalents with cash and cash equivalents reconciles to the balance sheet. This ASU was effective for Sony as of April 1, 2018 and has been applied on a retrospective basis. The adoption of this ASU did not have a material impact on Sony's results of operations and financial position.

### Clarifying the definition of a business -

In January 2017, the FASB issued ASU 2017-01 which clarifies the definition of a business. The ASU requires an entity to first determine whether substantially all of the fair value of a set of assets acquired is concentrated in either a single identifiable asset or a group of similar identifiable assets. If this criterion is met, the acquired set of assets is not deemed to be a business. If the criterion is not met, the entity must then evaluate whether the set of assets meets the requirement to be deemed a business. To be considered a business, the acquired set of assets would have to include an input and a substantive process that together significantly contribute to the ability to create outputs. This ASU was effective for Sony as of April 1, 2018. The adoption of this ASU did not have a material impact on Sony's results of operations and financial position.

### Presentation of net periodic pension and postretirement benefit costs -

In March 2017, the FASB issued ASU 2017-07, which requires separate presentation of service costs and other components of net benefit costs. The service costs will only be presented with other employee compensation costs in operating income or capitalized, while the other components of net benefit costs will be presented outside of operating income, and will not be eligible for capitalization. This ASU was effective for Sony as of April 1, 2018. This ASU is required to be applied on a retrospective basis for the presentation of service costs and other components of net benefit costs, and on a prospective basis for the capitalization of only the service costs component of net benefit costs. The adoption of this ASU did not have a material impact on Sony's results of operations and financial position.

### (3) Recent accounting pronouncements not yet adopted

### Leases -

In February 2016, the FASB issued ASU 2016-02, which amends current leasing guidance. The ASU requires substantially all leases to be recognized on the balance sheet. This ASU is effective for Sony as of April 1, 2019, and will be applied on a modified retrospective basis with no restatement of comparative periods. While Sony is continuing to assess all potential impacts of the standard, Sony currently believes the most significant impact relates to Sony's accounting for right-of-use assets and lease liabilities for operating leases of real estate. Sony estimates the adoption of this ASU will result in the recognition of right-of-use assets and lease liabilities for operating leases of real estate in the range of approximately 300 billion yen to 350 billion yen each for real estate. Although not significant, other leases including machinery and equipment will be also capitalized.

### Measurement of credit losses on financial instruments -

In June 2016, the FASB issued ASU 2016-13, which amends the accounting guidance for credit losses on financial instruments. The ASU requires the consideration of all available relevant information when estimating expected credit losses, including past events, current conditions and forecasts and their implications for expected credit losses. This ASU will be effective for Sony as of April 1, 2020. The impact of this ASU on Sony's results of operations and financial position is being evaluated.

### Premium amortization on purchased callable debt securities -

In March 2017, the FASB issued ASU 2017-08, which requires certain premiums on callable debt securities to be amortized to the earliest call date. The amortization period for callable debt securities purchased at a discount will not be affected. This ASU is effective for Sony as of April 1, 2019. The adoption of this ASU is not expected to have a material impact on Sony's results of operations and financial position.

### Targeted improvements to accounting for hedging activities -

In August 2017, the FASB issued ASU 2017-12, which made targeted improvements to the accounting for hedging activities. The amendments in this update simplify certain aspects of hedge accounting for both non-financial and financial risks and better align the recognition and measurement of hedge results with an entity's risk management activities. This ASU also amends certain presentation and disclosure requirements for hedging activities and changes how an entity assesses hedge effectiveness. This ASU is effective for Sony as of April 1, 2019. The adoption of this ASU is not expected to have a material impact on Sony's results of operations and financial position.

### Improvements to Accounting for Costs of Films and License Agreements for Program Materials -

In March 2019, the FASB issued ASU 2019-02. The ASU updates the guidance for the capitalization of film costs associated with episodic television series, requires the use of fair value rather than net realizable value when determining potential impairments of broadcasting rights, and modifies the presentation and disclosure requirements for films and broadcasting rights. In addition, upon capitalization of film costs entities are required to determine qualitatively whether the predominant monetization strategy is on a title-by-title basis or together with other films and/or broadcast rights as part of a film group, such as in the case of a release of a film as part of a library of content on a streaming service. In the case of a film group, impairments are evaluated at the overall film group level rather than the individual title level. This ASU will be effective for Sony as of April 1, 2020. The impact of this ASU on Sony's results of operations and financial position is being evaluated.

### Targeted Improvements to the Accounting for Long-Duration Contracts -

In August 2018, the FASB issued ASU 2018-12, which revises the accounting for certain long-duration insurance contracts. The ASU prescribes comprehensive changes to recognition and measurement of certain long-duration insurance contracts and assumptions and introduces certain financial statement presentation requirements, as well as significant additional qualitative and quantitative disclosures. This ASU will be effective for Sony as of April 1, 2021. The impact of this ASU on Sony's results of operations and financial position is being evaluated.

### Disclosures for Fair Value Measurement -

In August 2018, the FASB issued ASU 2018-13, which amends disclosure requirements related to fair value measurement. This ASU will be effective for Sony as of April 1, 2020. Since this ASU will only impact disclosures, the adoption will have no impact on Sony's results of operations and financial position.

### Disclosures for Defined Benefit Plans -

In August 2018, the FASB issued ASU 2018-14, which amends disclosure requirements related to defined benefit pension and other postretirement plans. This ASU will be effective for Sony as of April 1, 2020 and will be applied on a retrospective basis. Since this ASU will only impact disclosures, the adoption will have no impact on Sony's results of operations and financial position.

# (4) Reclassifications

Certain reclassifications of the financial statements and accompanying footnotes for the fiscal years ended March 31, 2017 and 2018 have been made to conform to the presentation for the fiscal year ended March 31, 2019.

### 3. Inventories

Inventories are comprised of the following:

	Yen in	millions
	Mar	ch 31
	2018	2019
Finished products	422,461	407,295
Work in process	153,257	154,178
Raw materials, purchased components and supplies	117,219	91,805
Inventories	<u>692,937</u>	653,278

### 4. Film costs

Film costs are comprised of the following:

	Yen in millions	
	Marc	ch 31
	2018	2019
Motion picture productions:		
Released	81,755	87,158
Completed and not released	1,728	3,189
In production and development	78,868	130,736
Television productions:		
Released	127,790	144,316
In production and development	1,174	9,147
Broadcasting rights	72,125	70,401
Less: current portion of broadcasting rights included in inventories	(35,795)	(35,942)
Film costs	<u>327,645</u>	409,005

Sony estimates that approximately 93% of the unamortized film costs of released motion picture and television productions at March 31, 2019 will be amortized within the next three years. Approximately 168 billion yen of completed film costs are expected to be amortized during the next twelve months. Approximately 166 billion yen of accrued participation liabilities included in accounts payable, other and accrued expenses are expected to be paid during the next twelve months.

# 5. Investments in affiliated companies

The summarized combined financial information that is based on information provided by the equity investees including information for significant equity affiliates and the reconciliation of such information to the consolidated financial statements is shown below:

### **Balance Sheets**

	Yen in millions		
	March 31		
	2018	2019	
Current assets	404,658	355,320	
Noncurrent assets	868,455	608,626	
Current liabilities	273,067	188,905	
Noncurrent liabilities and noncontrolling interests	768,007	584,714	
Percentage of ownership in equity investees	20%-50%	20%-50%	

### Statements of Income

	Y en in millions			
	Fiscal year ended March 31			
	2017	2018	2019	
Net revenues	387,229	468,933	390,457	
Operating income	37,800	56,729	53,920	
Net income attributable to controlling interests	11,529	27,301	5,539	
Percentage of ownership in equity investees	20%-50%	20%-50%	20%-50%	

On November 14, 2018, Sony Corporation of America, Sony's wholly-owned subsidiary, completed the acquisition of the entirety of the approximately 60% equity interest held by the investor consortium led by the Mubadala Investment Company in DH Publishing, L.P. ("EMI"), which owned and managed EMI Music Publishing. As a result of this acquisition, EMI became a wholly-owned subsidiary of Sony as described in Note 25.

On January 30, 2017, Sony sold 17,302,700 shares of its 127,381,600 shares in its affiliated company M3, Inc. ("M3") to a third party for cash consideration of 51,968 million yen, which is included within other in the investing activities section of the consolidated statements of cash flows. In connection with the sale, Sony's share ownership decreased from 39.35% to 34.0% of the issued and outstanding shares of M3 and Sony recorded a gain of 37,167 million yen in other operating (income) expense, net in the consolidated statements of income for the fiscal year ended March 31, 2017. Sony continues to account for its remaining interest in M3 under the equity method. Sony remains a major shareholder of M3 and will continue to pursue opportunities to collaborate with M3 in certain business areas, including medical.

The carrying value of Sony's investment in M3 exceeded its proportionate share in the underlying net assets of M3 by 102,696 million yen at March 31, 2019. The excess is substantially attributable to the remeasurement to fair value of the remaining shares of M3, and allocated to identifiable tangible and intangible assets. The intangible assets relate primarily to M3's medical web-portal. The unassigned residual value of the excess is recognized as goodwill as a component of the investment balance. The amounts allocated to intangible assets are amortized net of the related tax effects to equity in net income (loss) of affiliated companies over their respective estimated useful lives, principally 10 years, using the straight-line method.

With the exception of M3 as described above, there was no significant difference between Sony's proportionate share in the underlying net assets of the investees and the carrying value of investments in affiliated companies at March 31, 2018 and 2019.

Several affiliated companies are listed on the Tokyo Stock Exchange and Sony's investments in these companies have an aggregate carrying value and fair value of 104,079 million yen and 423,108 million yen, respectively, as of March 31, 2019.

The number of affiliated companies accounted for under the equity method as of March 31, 2018 and 2019 were 107 and 133, respectively.

Account balances and transactions with affiliated companies accounted for under the equity method are presented below. There are no other material transactions or account balances with any other related parties.

		Yen in millions  March 31	
	_		
	_	2018	2019
Accounts receivable, trade	1	5,516	12,404
Accounts payable, trade		2,568	1,087
Short-term borrowings	2	2,849	29,744
Capital lease obligations	1	3,294	20,265
	Yen	in million	ıs
	Fiscal year	ended M	arch 31
	2017	2018	2019
Sales	31,238 4	5,415	41,437
Purchases	1,966	3,180	5,584
Lease payments	16,492	7,749	7,455

Sony entered into sale and leaseback transactions regarding certain machinery and equipment with SFI Leasing Company, Limited ("SFIL"), a leasing company in Japan, in the fiscal years ended March 31, 2017, 2018 and 2019. SFIL is accounted for under the equity method and is 34% owned by Sony.

MITSUI-SOKO Supply Chain Solutions, Inc. is accounted for under the equity method and is 34% owned by Sony as a result of the sale of the logistics business on April 1, 2015. As of the fiscal years ended March 31, 2018 and 2019, account balances with MITSUI-SOKO Supply Chain Solutions, Inc. and its subsidiaries were 3,662 million yen and 3,435 million yen, respectively, which are mainly included in accrued expenses. For the fiscal years ended March 31, 2018 and 2019, transactions were 9,123 million yen and 10,606 million yen, respectively, which are mainly included in general and administrative expenses.

Dividends from affiliated companies accounted for under the equity method for the fiscal years ended March 31, 2017, 2018 and 2019 were 7,970 million yen, 5,613 million yen and 4,948 million yen, respectively.

### 6. Transfer of financial assets

Sony has established several accounts receivable sales programs mainly within the HE&S, IP&S and MC segments. Through these programs, Sony can sell receivables to a commercial bank or a special purpose entity associated with a sponsor bank. Total receivables sold during the fiscal years ended March 31, 2017, 2018 and 2019 were 73,185 million yen, 84,718 million yen and 81,947 million yen, respectively. These transactions are accounted for as sales in accordance with the accounting guidance for transfers of financial assets, because Sony has relinquished control of the receivables. Sony includes the sales proceeds from these receivables as cash flows within operating activities in the consolidated statement of cash flows because the receivables are the result of operating activities and are short term in nature. Gains and losses from these transactions were insignificant. Although Sony continues servicing the receivables subsequent to being sold or contributed, no servicing assets or liabilities are recorded as the costs of collection of the sold receivables and the income from servicing such receivables are insignificant.

Certain of the accounts receivable sales programs above also involve VIEs. Refer to Note 24.

### 7. Marketable securities and securities investments

Marketable securities and securities investments, primarily included in the Financial Services segment, are comprised of debt and equity securities for which the aggregate cost, gross unrealized gains and losses and fair value pertaining to available-for-sale securities and held-to-maturity securities are as follows. Sony adopted ASU 2016-01 from April 1, 2018, and as a result, the available-for-sale classification is eliminated for equity securities as of March 31, 2019.

				Yen in	millions			
	March 31, 2018					March	31, 2019	
	Cost	Gross unrealized gains	Gross unrealized losses	Fair value	Cost	Gross unrealized gains	Gross unrealized losses	Fair value
Available-for-sale:								
Debt securities:								
Japanese national government								
bonds	1,227,139	182,830	(359)	1,409,610	1,422,620	220,989	(20)	1,643,589
Japanese local government								
bonds	67,574	107	(112)	67,569	67,461	70	(34)	67,497
Japanese corporate bonds	199,880	9,844	(1,016)	208,708	202,433	17,178	(223)	219,388
Foreign government bonds	72,204	622	(3,287)	69,539	153,429	8,669	(603)	161,495
Foreign corporate bonds	365,457	1,649	(641)	366,465	360,299	944	(376)	360,867
Securitized products	99,349	1	(0)	99,350	190,111	1	_	190,112
Other					2,286	2,402		4,688
	2,031,603	195,053	(5,415)	2,221,241	2,398,639	250,253	(1,256)	2,647,636
Equity securities	55,676	71,723	(776)	126,623				
Held-to-maturity securities:								
Japanese national government								
bonds	5,892,868	1,635,036	(20,890)	7,507,014	6,042,635	2,016,786	_	8,059,421
Japanese local government								
bonds	3,850		_	4,263	3,518	388	_	3,906
Japanese corporate bonds	345,818	16,912	(17,390)	345,340	409,329	44,348	(5,845)	447,832
Foreign government bonds	300,220	8,310	(18,570)	289,960	386,392	18,609	(13,742)	391,259
Foreign corporate bonds	198	13		211	198	11		209
	6,542,954	1,660,684	(56,850)	8,146,788	6,842,072	2,080,142	(19,587)	8,902,627
Total	8,630,233	1,927,460	(63,041)	10,494,652	9,240,711	2,330,395	(20,843)	11,550,263

The following table presents the cost and fair value of debt securities classified as available-for-sale securities and held-to-maturity securities by contractual maturity:

	Yen in millions				
		March	31, 2019		
	Available-for-	sale securities	Held-to-matu	rity securities	
	Cost	Fair value	Cost	Fair value	
Due in one year or less	132,770	132,745	6,286	6,334	
Due after one year through five years	455,624	462,682	37,281	40,085	
Due after five years through ten years	476,261	552,287	393,787	453,310	
Due after ten years	1,333,984	1,499,922	6,404,718	8,402,898	
Total	2,398,639	2,647,636	6,842,072	8,902,627	

Proceeds from sales of available-for-sale securities were 75,319 million yen, 39,982 million yen and 66,906 million yen for the fiscal years ended March 31, 2017, 2018 and 2019, respectively. On these sales, gross realized gains were 2,297 million yen, 1,257 million yen and 240 million yen and gross realized losses were 37 million yen, 2 million yen and 475 million yen, respectively, for the fiscal years ended March 31, 2017, 2018 and 2019. Sony adopted ASU 2016-01 from April 1, 2018, and as a result, the available-for-sale classification is eliminated for equity securities for the fiscal year ended March 31, 2019.

Marketable securities classified as trading securities, which are held primarily in the Financial Services segment, totaled 1,048,062 million yen and 234,117 million yen as of March 31, 2018 and 2019, respectively. Sony recorded net unrealized gains of 56,593 million yen, net unrealized gains of 48,047 million yen, and net unrealized gains of 3,610 million yen for the fiscal years ended March 31 2017, 2018 and 2019, respectively. Changes in the fair value of trading securities are primarily recognized in financial services revenue in the consolidated statements of income. Sony adopted ASU 2016-01 from April 1, 2018, and as a result, the trading classification is eliminated for equity securities as of March 31, 2019 and for the fiscal year ended March 31, 2019.

The following tables present the gross unrealized losses on, and fair value of, Sony's investment securities with unrealized losses, aggregated by investment category and the length of time that individual investment securities have been in a continuous unrealized loss position, at March 31, 2018 and 2019. Sony adopted ASU 2016-01 from April 1, 2018, and as a result, the available-for-sale classification is eliminated for equity securities as of March 31, 2019.

Von in millione

			Yen in	millions		
	March 31, 2018					
	Less than	12 months	12 mont	hs or more	T	otal
	Fair value	Unrealized losses	Fair value	Unrealized losses	Fair value	Unrealized losses
Available-for-sale:						
Debt securities:						
Japanese national government bonds	10,118	(11)	32,836	(348)	42,954	(359)
Japanese local government bonds	9,324	(11)	14,729	(101)	24,053	(112)
Japanese corporate bonds	11,046	(10)	64,119	(1,006)	75,165	(1,016)
Foreign government bonds	40,156	(2,281)	7,752	(1,006)	47,908	(3,287)
Foreign corporate bonds	34,840	(69)	21,191	(572)	56,031	(641)
Securitized products	1,840	(0)	315	(0)	2,155	(0)
	107,324	(2,382)	140,942	(3,033)	248,266	(5,415)
Equity securities	13,859	(776)	15	(0)	13,874	(776)
Held-to-maturity securities:						
Japanese national government bonds	_	_	304,564	(20,890)	304,564	(20,890)
Japanese local government bonds		_	_	_		_
Japanese corporate bonds		_	174,815	(17,390)	174,815	(17,390)
Foreign government bonds	20,448	(704)	134,230	(17,866)	154,678	(18,570)
Foreign corporate bonds						
	20,448	(704)	613,609	(56,146)	634,057	(56,850)
Total	141,631	(3,862)	754,566	(59,179)	896,197	(63,041)

			I CH III	IIIIIIIIIII		
		March 31, 2019				
	Less than	12 months	12 mont	hs or more	Total	
	Fair value	Unrealized losses	Fair value	Unrealized losses	Fair value	Unrealized losses
Available-for-sale:						
Debt securities:						
Japanese national government bonds	_	_	4,063	(20)	4,063	(20)
Japanese local government bonds	27,404	(29)	4,872	(5)	32,276	(34)
Japanese corporate bonds	25,725	(21)	19,925	(202)	45,650	(223)
Foreign government bonds	_		15,878	(603)	15,878	(603)
Foreign corporate bonds	50,281	(117)	15,455	(259)	65,736	(376)
Securitized products	_		_		_	_
Other						
	103,410	(167)	60,193	(1,089)	163,603	(1,256)
Held-to-maturity securities:						
Japanese national government bonds	_		_	_	_	_
Japanese local government bonds	_	_	_	_	_	_
Japanese corporate bonds	_		97,984	(5,845)	97,984	(5,845)
Foreign government bonds	_		151,229	(13,742)	151,229	(13,742)
Foreign corporate bonds						
	_	_	249,213	(19,587)	249,213	(19,587)
Total	103,410	(167)	309,406	(20,676)	412,816	(20,843)

Yen in millions

At March 31, 2019, Sony determined that the decline in value for securities with unrealized losses shown in the above table is not other-than-temporary in nature.

For the fiscal year ended March 31, 2019, with respect to equity securities included in marketable securities and securities investments, Sony recorded net realized gains of 77,495 million yen due to the sale of equity securities and net unrealized gains of 104,168 million yen due to revaluation of equity securities held as of March 31, 2019. Gains or losses arising from equity securities held in the Financial Services segment are recorded in financial services revenue, and gains or losses arising from equity securities held in all segments other than the Financial Services segment are recorded in gain on equity securities, net in the consolidated statement of income. Included in the gains noted above were gains recorded by Sony with respect to the equity securities held by Sony in Spotify Technology S.A. ("Spotify").

On April 3, 2018, Spotify was publicly listed for trading on the New York Stock Exchange. Sony owned 5.707% of Spotify's shares at the time of the public listing.

During the fiscal year ended March 31, 2019, Sony sold a portion of the Spotify shares that it owned for aggregate consideration of 82,616 million yen (768 million U.S. dollars) in cash proceeds. The sale of such shares, offset by costs to be paid to Sony's artists and distributed labels and other transaction costs which directly related to the gains recognized from the sale of Spotify shares, resulted in a net pre-tax realized gain of 54,179 million yen (504 million U.S. dollars) recorded in gain on equity securities, net in the consolidated statement of income. The payments to Sony's artists and distributed labels are included within other in the cash flows from investing activities of the consolidated statement of cash flows.

The remaining Spotify shares retained as of March 31, 2019 have a gross fair value of 78,947 million yen (711 million U.S. dollars), and the revaluation of such shares resulted in a pre-tax unrealized gain, net of costs to be paid to Sony's artists and distributed labels and other costs which directly related to the gains recognized from the revaluation of Spotify shares, of 47,543 million yen (449 million U.S. dollars) recorded in gain on equity securities, net in the consolidated statement of income.

In the ordinary course of business, Sony maintains long-term investment securities, included in securities investments and other, issued by various non-public companies. The aggregate carrying amounts of the investments in non-public companies as of March 31, 2018 and 2019 totaled 52,361 million yen and 25,720 million yen, respectively. Prior to Sony's adoption of ASU 2016-01, non-public equity investments were

primarily valued at cost as fair value is not readily determinable. Sony adopted ASU 2016-01 from April 1, 2018, and as a result, equity securities that do not have readily determinable fair values are measured at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer. Sony recorded no upward adjustments, and downward adjustments (including impairments) of 4,285 million yen, for securities that do not have readily determinable fair values for the fiscal year ended March 31, 2019.

### 8. Leases

Sony leases certain communication and commercial equipment, plant, office space, warehouses, employees' residential facilities and other assets under both capital and operating leases. Sony has also entered into capital lease arrangements with third parties to finance sale and leaseback transactions for certain office buildings, machinery and equipment.

### (1) Capital leases

Leased assets under capital leases are comprised of the following:

Yen in millions		
Marc	ch 31	
2018	2019	
93,491	92,915	
6,639	29,089	
(58,861)	(61,349)	
41,269	60,655	
	Marc 2018 93,491 6,639 (58,861)	

The following is a schedule by fiscal year of the future minimum lease payments under capital leases together with the present value of the net minimum lease payments as of March 31, 2019:

Fiscal year ending March 31	Yen in millions
2020	36,195
2021	10,429
2022	6,454
2023	5,246
2024	3,448
Later fiscal years	15,441
Total minimum lease payments	77,213
Less — Amount representing interest	8,385
Present value of net minimum lease payments	68,828
Less — Current obligations	35,144
Long-term capital lease obligations	33,684

### (2) Operating leases

The minimum rental payments required under operating leases that have initial or remaining noncancelable lease terms in excess of one year at March 31, 2019 are as follows:

Fiscal year ending March 31	Yen in millions
2020	58,901
2021	48,823
2022	34,726
2023	25,355
2024	22,152
Later fiscal years	78,507
Total minimum future rentals	268,464

Rental expenses under operating leases for the fiscal years ended March 31, 2017, 2018 and 2019 were 77,976 million yen, 77,950 million yen and 71,516 million yen, respectively. Sublease rentals received under operating leases for the fiscal years ended March 31, 2017, 2018 and 2019 were 1,157 million yen, 1,325 million yen and 1,013 million yen, respectively. The total minimum rentals to be received in the future under noncancelable subleases for operating leases as of March 31, 2019 were 1,598 million yen.

### 9. Goodwill and other intangible assets

Intangible assets other than goodwill acquired during the fiscal year ended March 31, 2019 totaled 523,504 million yen, of which 523,494 million yen is subject to amortization, and are comprised of the following:

	Intangible assets acquired during the fiscal year	Weighted-average amortization period
	Yen in millions	Years
Patent rights, know-how and license agreements	1,728	6
Software to be sold, leased or otherwise marketed	17,114	3
Internal-use software	72,730	4
Music catalogs*	412,575	43
Artist contracts	13,847	27
Other	5,500	9

<sup>\*</sup> Includes music catalogs relating to EMI Music Publishing acquisition. Refer to Note 25.

In the fiscal year ended March 31, 2019, additions to internal-use software primarily related to the capitalization of new software across several business platforms.

Intangible assets subject to amortization are comprised of the following:

Total

Yen in millions March 31, 2018 March 31, 2019 Accumulated amortization Gross carrying Accumulated **Gross carrying** amortization amount amount Patent rights, know-how and license agreements 175,980 (142,724)169,761 (145,525)Customer relationships 18,881 (7,615)15,759 (11,825)Trademarks 16,310 (8,451)15,768 (9,863)Software to be sold, leased or otherwise marketed 123,269 (92,457)125,350 (96,322)Internal-use software 494,649 (315,516)529,022 (345,935)Music catalogs 207,789 615,206 (94,210)(106,725)Artist contracts 28,534 (27,650)42,575 (29,108)Television carriage contracts 74,258 74,605 (broadcasting agreements) (25,884)(28,685)Other 58,543 (47,586)61,675 (49,288)

The aggregate amortization expense for intangible assets for the fiscal years ended March 31, 2017, 2018 and 2019 was 121,634 million yen, 123,450 million yen and 109,452 million yen, respectively. The estimated aggregate amortization expense for intangible assets for the next five fiscal years is as follows:

1,198,213

(762,093)

1,649,721

(823,276)

Fiscal year ending March 31	Yen in millions
2020	100,631
2021	84,220
2022	64,747
2023	49,941
2024	34,907

Total carrying amount of intangible assets having an indefinite life are comprised of the following:

Yen in	millions
Mar	ch 31
2018	2019
68,922	69,447
18,834	18,834
3,292	3,240
91,048	91,521
	March 2018 68,922 18,834 3,292

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

					1	Yen in milli	ons			
	G&NS	Music	Pictures	HE&S	IP&S	MC	Semiconductors	Financial Services	All Other	Total
Balance, March 31, 2017:										
Goodwill — gross	151,938	166,416	246,085	5,320	8,451	179,331	48,069	3,081	28,842	837,533
Accumulated impairments	_	(306)	(107,932)	(5,320)	(300)	(176,045)	_	(706)	(24,386)	(314,995)
Goodwill	151,938	166,110	138,153		8,151	3,286	48,069	2,375	4,456	522,538
Increase (decrease) due to:										
Acquisitions	_	2,877	12,842	_	1,204	_	_	4,850	_	21,773
Sales and dispositions	_	(121)	_	_	_	_	_	_	_	(121)
Impairments	_	_	_	_	_	_	_	_	_	_
Translation adjustments	(1,332)	(3,472)	(6,583)	_	162	_	(1,072)		(85)	(12,382)
Other							(1,204)		(112)	(1,316)
Balance, March 31, 2018:										
Goodwill — gross	150,606	165,700	246,620	5,320	9,817	179,331	45,793	7,931	27,912	839,030
Accumulated impairments		(306)	(102,208)	(5,320)	(300)	(176,045)		(706)	(23,653)	(308,538)
Goodwill	150,606	165,394	144,412		9,517	3,286	45,793	7,225	4,259	530,492
Increase (decrease) due to:										
Acquisitions*	2,261	240,396	387	_	_	_	_	_	_	243,044
Sales and dispositions	_	_	_	_	_	_	_	_	_	_
Impairments	_	_	_	_	(776)	_	_	_	(4,331)	(5,107)
Translation adjustments	1,088	(2,420)		_	(73)	_	771	_	72	3,111
Other			(2,988)							(2,988)
Balance, March 31, 2019:										
Goodwill — gross	153,955	403,676	252,262	5,320	9,765	179,331	46,564	7,931	28,570	1,087,374
Accumulated impairments		(306)	(106,778)	(5,320)	(1,097)	(176,045)		(706)	(28,570)	(318,822)
Goodwill	153,955	403,370	145,484		8,668	3,286	46,564	7,225		768,552

<sup>\*</sup> Acquisitions for the fiscal year ended March 31, 2019 relate mainly to EMI Music Publishing acquisition in the Music segment. Refer to Note 25.

Impairment of goodwill in the Pictures segment -

During the fiscal year ended March 31, 2017, Sony made a downward revision in the future profitability projection for the Motion Pictures business within the Pictures segment primarily due to a lowering of previous expectations regarding the home entertainment business, mainly driven by an acceleration of market decline. The future profitability projection for the Motion Pictures business also reflected a reduction in underlying profitability projections of film performance largely mitigated by measures identified to improve the profitability of the Motion Pictures business.

Sony assessed the aforementioned events and circumstances and determined that it was more likely than not that the fair value of the Production & Distribution reporting unit (which includes the Motion Pictures and the Television Productions businesses) was less than its carrying value. Accordingly, Sony conducted the goodwill impairment tests using this new profitability projection and recalculated the implied fair value of the goodwill of the reporting unit. As a result of this recalculation, the carrying value of the goodwill was determined to be zero.

Consequently, the entire amount of the goodwill in the Production & Distribution reporting unit, 112,069 million yen, was impaired, in the fiscal year ended March 31, 2017. The impairment loss was included in other operating (income) expense, net in the consolidated statements of income, and was recorded entirely within the Pictures segment.

#### 10. Insurance-related accounts

Sony's Financial Services segment subsidiaries in Japan maintain their accounting records as described in Note 2 in accordance with the accounting principles and practices generally accepted in Japan, which vary in some respects from U.S. GAAP.

Those differences are mainly that insurance acquisition costs for life and non-life insurance contracts are charged to income when incurred in Japan whereas in the United States those costs are deferred and amortized

generally over the premium-paying period of the related insurance policies, and that future policy benefits for life insurance contracts calculated locally under the authorization of the supervisory administrative agencies are comprehensively adjusted using the net level premium method with certain adjustments of actuarial assumptions for U.S. GAAP purposes. For the purpose of preparing the consolidated financial statements, appropriate adjustments have been made to reflect the accounting for these items in accordance with U.S. GAAP.

The combined amounts of statutory net equity of the insurance subsidiaries, which is not measured in accordance with U.S. GAAP, as of March 31, 2018 and 2019 were 525,976 million yen and 548,730 million yen, respectively.

## (1) Insurance policies

Life insurance policies that a subsidiary in the Financial Services segment underwrites, most of which are categorized as long-duration contracts, mainly consist of whole life, term life and accident and health insurance contracts. The life insurance revenues for the fiscal years ended March 31, 2017, 2018 and 2019 were 754,242 million yen, 857,766 million yen and 910,011 million yen, respectively. Property and casualty insurance policies that a subsidiary in the Financial Services segment underwrites are primarily automotive insurance contracts, which are categorized as short-duration contracts. The non-life insurance revenues for the fiscal years ended March 31, 2017, 2018 and 2019 were 97,581 million yen, 105,497 million yen and 111,392 million yen, respectively.

#### (2) Deferred insurance acquisition costs

Amortization of deferred insurance acquisition costs charged to income for the fiscal years ended March 31, 2017, 2018 and 2019 amounted to 36,130 million yen, 68,137 million yen and 79,906 million yen, respectively.

### (3) Future insurance policy benefits

Liabilities for future policy benefits, which mainly relate to individual life insurance policies, are established in amounts adequate to meet the estimated future obligations of policies in force. These liabilities, which require significant management judgment and estimates, are computed by the net level premium method based upon the assumptions as to future investment yield, morbidity, mortality, withdrawals and other factors. Future policy benefits are computed using interest rates ranging from 0.8% to 4.5% and are based on factors such as market conditions and expected investment returns. Morbidity, mortality and withdrawal assumptions for all policies are based on either the subsidiary's own experience or various actuarial tables. Generally these assumptions are locked-in throughout the life of the contract upon the issuance of new insurance, although significant changes in experience or assumptions may require Sony to provide for expected future losses. At March 31, 2018 and 2019, future insurance policy benefits amounted to 5,211,421 million yen and 5,633,865 million yen, respectively.

# (4) Policyholders' account in the life insurance business

Policyholders' account in the life insurance business represents an accumulation of account deposits plus credited interest less withdrawals, expenses and mortality charges. Policyholders' account includes universal life insurance and investment contracts. Universal life insurance includes interest sensitive whole life contracts and variable contracts. The credited rates associated with interest sensitive whole life contracts range from 1.8% to 2.0%. For variable contracts, policy values are expressed in terms of investment units. Each unit is linked to an asset portfolio. The value of a unit increases or decreases based on the value of the linked asset portfolio. Investment contracts mainly include single payment endowment contracts, single payment educational endowment contracts, individual variable annuities and policies after the start of annuity payments. The credited rates associated with investment contracts, except for individual variable annuities, range from 0.01% to 6.3%. For individual variable annuities, policy values are expressed in terms of investment units. Each unit is linked to an asset portfolio. The value of a unit increases or decreases based on the value of the linked asset portfolio.

Policyholders' account in the life insurance business is comprised of the following:

	Y en in	millions
	Mar	ch 31
	2018	2019
Universal life insurance	1,951,906	2,104,646
Investment contracts	738,404	816,903
Other	130,392	126,653
Total	2,820,702	3,048,202

# 11. Short-term borrowings and long-term debt

Short-term borrowings are comprised of the following:

	Yen in 1	nillions
	Marc	ch 31
	2018	2019
Unsecured loans: with a weighted-average interest rate of 3.95% with a weighted-average interest rate of 2.52%	64,480	55,186
Secured loans: with a weighted-average interest rate of 0.12%	27	33,100
Repurchase agreement: with a weighted-average interest rate of 0.18% with a weighted-average interest rate of 0.56%	335,586	432,820
Secured call money: with a weighted-average interest rate of (0.07)% with a weighted-average interest rate of 0.18%	96,000	130,612 618,618

At March 31, 2019, certain subsidiaries in the Financial Services segment pledged marketable securities and securities investments with a book value of 363,322 million yen as collateral for 432,820 million yen of short-term repurchase agreements. The repurchase agreement provides for net settlement upon a termination event.

At March 31, 2019, certain subsidiaries in the Financial Services segment pledged marketable securities and securities investments with a book value of 59,496 million yen as collateral for 130,612 million yen of secured call money.

In addition, certain subsidiaries in the Financial Services segment pledged marketable securities and securities investments with an aggregate book value of 8,822 million yen as collateral for cash settlements, variation margins of futures markets and certain other purposes.

	Y en in i	millions
	Marc	ch 31
	2018	2019
Unsecured loans, representing obligations principally to banks:		
Due 2018 to 2024, with interest rates ranging from 0.01% to 5.10% per annum	49,454	
Due 2019 to 2024, with interest rates ranging from 0.01 % to 7.89 % per annum		57,321
Unsecured 0.86% bonds, due 2018	150,000	
Unsecured 2.00% bonds, due 2018	16,300	
Unsecured 0.05% bonds, due 2019	69,879	69,964
Unsecured 2.07% bonds, due 2019	50,000	50,000
Unsecured 0.23% bonds, due 2021	89,744	89,819
Unsecured 0.11% bonds, due 2022	10,000	10,000
Unsecured 1.41% bonds, due 2022	10,000	10,000
Unsecured 0.28% bonds, due 2023	15,000	15,000
Unsecured 0.22% bonds, due 2025	10,000	10,000
Unsecured 0.42% bonds, due 2026	24,899	24,911
Unsecured zero coupon convertible bonds, due 2022, conversion price 5,008.0 yen per		
common share	119,976	119,961
Secured 0.00% loans, due 2019 to 2022	170,002	
Secured 0.00% loans, due 2020 to 2023		200,003
Capital lease obligations and other:		
Due 2018 to 2047, with interest rates ranging from 0.36% to 11.88% per annum	52,929	
Due 2019 to 2048, with interest rates ranging from 0.36% to 9.14% per annum		72,991
Guarantee deposits received	10,790	10,863
	848,973	740,833
Less — Portion due within one year	225,522	172,461
	623,451	568,372

Yen in millions

At March 31, 2019, certain subsidiaries in the Financial Services segment pledged marketable securities and securities investments with a book value of 13,043 million yen and housing loans with a book value of 412,560 million yen as collateral for a 200,000 million yen long-term secured loan.

On July 21, 2015, Sony issued 120,000 million yen of 130% callable unsecured zero coupon convertible bonds with stock acquisition rights due 2022 (the "Zero Coupon Convertible Bonds"). The bondholders are entitled to stock acquisition rights effective from September 1, 2015 to September 28, 2022. The initial conversion price is 5,008.0 yen per common share. In addition to the standard anti-dilution provisions, the conversion price is reduced for a certain period before an early redemption triggered upon the occurrence of certain corporate events including a merger, corporate split and delisting event. The reduced amount of the conversion price will be determined by a formula that is based on the effective date of the reduction and Sony's common stock price. The reduced conversion price ranges from 3,526.5 yen to 5,008.0 yen per common share. The conversion price is also adjusted for dividends in excess of 25 yen per common share per fiscal year. The initial conversion price has been adjusted to 4,996.0 yen per common share since May 10, 2019 because the payment of the total annual dividend per common share for the fiscal year ended March 31, 2019 was 35 yen, which is in excess of 25 yen. Sony has the option to redeem all of the Zero Coupon Convertible Bonds outstanding at 100% of the principal amount after July 21, 2020, if the closing sales price per share of Sony's common stock on the Tokyo Stock Exchange is 130% or more of the conversion price of the Zero Coupon Convertible Bonds for 20 consecutive trading days. Sony was not required to bifurcate any of the embedded features contained in the Zero Coupon Convertible Bonds for accounting purposes. There are no significant adverse debt covenants under the Zero Coupon Convertible Bonds.

In September 2016, Sony issued unsecured straight bonds in the aggregate principal amount of 200,000 million yen. In June 2018, Sony repaid 150,000 million yen of the 200,000 million yen.

There are no significant adverse debt covenants or cross-default provisions related to the other short-term borrowings and long-term debt.

Aggregate amounts of annual maturities of long-term debt are as follows:

Fiscal year ending March 31	Yen in millions
2020	172,461
2021	41,466
2022	186,004
2023	227,987
2024	18,102
Later fiscal years	94,813
Total	740,833

At March 31, 2019, Sony had unused committed lines of credit amounting to 522,453 million yen and can generally borrow up to 180 days from the banks with whom Sony has committed line contracts. Furthermore, at March 31, 2019, Sony has commercial paper programs totaling 1,054,950 million yen. Sony can issue commercial paper for a period generally not in excess of 270 days up to the size of the programs.

In connection with EMI Music Publishing acquisition, Sony assumed \$350 million of unsecured notes (the "EMI Notes") due June 15, 2024 with a fixed annual interest rate of 7.625%. In April 2019, Sony notified the EMI Noteholders of its intention to redeem the entirety of the EMI Notes on June 17, 2019 at a premium of 105.719% plus accrued and unpaid interest in accordance with the terms of the EMI Notes. The EMI Notes are included in "Later fiscal years" in the table above. Refer to Note 25.

#### 12. Housing loans and deposits from customers in the banking business

## (1) Housing loans in the banking business

Sony acquires and holds certain financial receivables in the normal course of business. The majority of financing receivables held by Sony consists of housing loans in the banking business and no other significant financial receivables exist.

A subsidiary in the banking business monitors the credit quality of housing loans based on the classification set by the financial conditions and the past due status of individual obligors. Past due status is monitored on a daily basis and the aforementioned classification is reviewed on a quarterly basis.

The allowance for the credit losses is established based on the aforementioned classifications and the evaluation of collateral. The amount of housing loans in the banking business and the corresponding allowance for credit losses as of March 31, 2018 were 1,522,415 million yen and 717 million yen, respectively, and as of March 31, 2019 were 1,685,504 million yen and 829 million yen, respectively. During the fiscal years ended March 31, 2018 and 2019, charge-offs on housing loans in the banking business and changes in the allowance for credit losses were not significant.

The balance of housing loans placed on nonaccrual status or past due status were not significant as of March 31, 2018 and 2019.

# (2) Deposits from customers in the banking business

All deposits from customers in the banking business within the Financial Services segment are interest bearing deposits. At March 31, 2018 and 2019, the balances of time deposits issued in amounts of 10 million yen or more were 279,943 million yen and 292,968 million yen, respectively. These amounts have been classified as current liabilities mainly due to the ability of the customers to make withdrawals prior to maturity.

At March 31, 2019, aggregate amounts of annual maturities of time deposits with a remaining term of more than one year are as follows:

Fiscal year ending March 31	Yen in millions
2021	66,796
2022	15,513
2023	11,083
2024	10,813
2025	2,530
Later fiscal years	25,047
Total	<u>131,782</u>

#### 13. Fair value measurements

As discussed in Note 2, assets and liabilities subject to the accounting guidance for fair value measurements held by Sony are classified and accounted for as described below.

## (1) Assets and liabilities that are measured at fair value on a recurring basis

The following section describes the valuation techniques used by Sony to measure different financial instruments at fair value, including an indication of the level in the fair value hierarchy in which each instrument is generally classified.

Debt securities, equity securities, and other investments

Where quoted prices are available in an active market, securities are classified in level 1 of the fair value hierarchy. Level 1 securities include exchange-traded equities. If quoted market prices are not available for the specific security or the market is inactive, then fair values are estimated by using pricing models, quoted prices of securities with similar characteristics or discounted cash flows and mainly classified in level 2 of the hierarchy. Level 2 securities include debt securities with quoted prices that are traded less frequently than exchange-traded instruments, such as the majority of government bonds and corporate bonds. In certain cases where there is limited activity or less transparency around inputs to the valuation, securities are classified within level 3 of the fair value hierarchy. Level 3 securities primarily include certain securitized products, certain hybrid financial instruments, certain private equity investments, and certain domestic and foreign corporate bonds not classified within level 1 or level 2.

#### Derivatives

Exchange-traded derivatives valued using quoted prices are classified within level 1 of the fair value hierarchy. However, few classes of derivative contracts are listed on an exchange; thus, the majority of Sony's derivative positions are valued using internally developed models that use as their basis readily observable market parameters — i.e., parameters that are actively quoted and can be validated to external sources, including industry pricing services. Depending on the types and contractual terms of derivatives, fair value can be modeled using a series of techniques, such as the Black-Scholes option pricing model, which are consistently applied. Where derivative products have been established for some time, Sony uses models that are widely accepted in the financial services industry. These models reflect the contractual terms of the derivatives, including the period to maturity, and market-based parameters such as interest rates, volatility, and the credit rating of the counterparty. Further, many of these models do not contain a high level of subjectivity as the techniques used in the models do not require significant judgment, and inputs to the model are readily observable from actively quoted markets. Such instruments are generally classified within level 2 of the fair value hierarchy.

In determining the fair value of Sony's interest rate swap derivatives, Sony uses the present value of expected cash flows based on market observable interest rate yield curves commensurate with the term of each instrument. For foreign currency derivatives, Sony's approach is to use forward contract and option valuation models employing market observable inputs, such as spot currency rates, time value and option volatilities. These derivatives are classified within level 2 since Sony primarily uses observable inputs in its valuation of its derivative assets and liabilities.

## Remeasurement of previously owned equity interests

During the fiscal year ended March 31, 2019, Sony remeasured to fair value the previously owned equity interests in EMI in connection with EMI Music Publishing acquisition. The measurement is classified as level 3 because significant unobservable inputs, such as projections of future cash flows and market comparables of similar transactions and companies were considered in the fair value measurements. Refer to Note 25.

The fair value of Sony's assets and liabilities that are measured at fair value on a recurring basis at March 31, 2018 and 2019 are as follows. Sony adopted ASU 2016-01 from April 1, 2018, and as a result, equity securities which were previously included in the trading securities category are included in the equity securities category as of March 31, 2019.

				Yen in	millions			
				March	31, 2018			
					Presentation	n in the conso	lidated ba	lance sheets
	Level 1	Level 2	Level 3	Total	Marketable securities	Securities investments and other	assets/	Other noncurrent assets/ liabilities
Assets:								
Trading securities	712,113	335,949	_	1,048,062	1,048,062	_	_	_
Available-for-sale securities								
Debt securities								
Japanese national								
government bonds	_	1,409,610	_	1,409,610	20,473	1,389,137	_	_
Japanese local government								
bonds	_	67,569	_	67,569	8,548	59,021	_	_
Japanese corporate bonds	_	208,708	_	208,708	8,041	200,667	_	_
Foreign government								
bonds*1	_	69,539	_	69,539	_	69,539	_	_
Foreign corporate bonds*2	_	338,587	27,878	366,465	88,228	278,237	_	_
Securitized products*3	_	15,736	83,614	99,350	_	99,350	_	_
Equity securities	126,330	293	_	126,623	_	126,623	_	_
Other investments*4	6,192	5,099	9,104	20,395	_	20,395	_	_
Derivative assets*5	2,194	37,332		39,526			37,003	2,523
Total assets	846,829	2,488,422	120,596	3,455,847	1,173,352	2,242,969	37,003	2,523
Liabilities:								
Derivative liabilities*5	1,407	34,317		35,724			20,550	15,174
Total liabilities	1,407	34,317		35,724			20,550	15,174

				March 3	31, 2019			
					Presentatio	n in the conso	olidated ba	lance sheets
	Level 1	Level 2	Level 3	Total	Marketable securities	Securities investments and other	Other current assets/ liabilities	Other noncurrent assets/ liabilities
Assets:								
Debt securities								
Trading securities	22,105	212,012	_	234,117	234,117	_		_
Available-for-sale								
securities								
Japanese national								
government bonds	_	1,643,589	_	1,643,589	18,719	1,624,870	_	_
Japanese local								
government bonds	_	67,497	_	67,497	7,768	59,729	_	_
Japanese corporate								
bonds	_	219,388	_	219,388	11,472	207,916	_	_
Foreign government								
bonds*1	_	161,495	_	161,495	3,984	157,511	_	_
Foreign corporate								
bonds*2	_	338,163	22,704	360,867		270,066	_	_
Securitized products*3	_	,	165,083	190,112	_	190,112	_	_
Other	_	4,688	_	4,688		4,688	_	_
Equity securities	1,037,100	135,794	_	1,172,894	951,390	221,504	_	_
Other investments*4	5,489	1,507	6,918	13,914	_	13,914	_	_
Derivative assets*5	444	10,042		10,486			9,431	1,055
Total assets	1,065,138	2,819,204	194,705	4,079,047	1,318,251	2,750,310	9,431	1,055
Liabilities:								
Derivative liabilities*5	136	32,686		32,822			19,852	12,970
Total liabilities	136	32,686	_	32,822	_	_	19,852	12,970

Yen in millions

- \*1 2,875 million yen and 4,910 million yen are included in foreign securities for which the fair value option has been elected and classified in level 2 for the fiscal years ended March 31, 2018 and 2019, respectively, and are included in the consolidated balance sheets as securities investments and other.
- \*2 160,470 million yen and 173,964 million yen are included in foreign securities for which the fair value option has been elected and classified in level 2 for the fiscal years ended March 31, 2018 and 2019, respectively. In the consolidated balance sheets, 25,955 million yen and 33,391 million yen are included as marketable securities and 134,515 million yen and 140,573 million yen are included as securities investment and other for the fiscal years ended March 31, 2018 and 2019, respectively.
- \*3 93,971 million yen and 185,195 million yen are included in foreign securities for which the fair value option has been elected and classified in level 2 and level 3 for the fiscal years ended March 31, 2018 and 2019, respectively, and are included in the consolidated balance sheets as securities investments and other.
- \*4 Other investments include certain hybrid financial instruments and certain private equity investments.
- \*5 Derivative assets and liabilities are recognized and disclosed on a gross basis.
- \*6 Net gains of 544 million yen and 85 million yen arising from financial instruments for which the fair value option has been elected are included in financial services revenue in the consolidated statements of income for the fiscal years ended March 31, 2018 and 2019, respectively.

Transfers into level 1 were 3,522 million yen and 1,769 million yen for the fiscal years ended March 31, 2018 and 2019, respectively, as quoted prices for certain trading debt securities and equity securities became available in an active market. Transfers out of level 1 were 3,086 million yen and 2,508 million yen for the fiscal years ended March 31, 2018 and 2019, respectively, as quoted prices for certain trading debt securities were not available in an active market.

The changes in fair value of level 3 assets and liabilities for the fiscal years ended March 31, 2018 and 2019 are as follows:

	F	Yen in millio Tiscal year ended Mar		
		Assets		
	Availa	ble-for-sale securities	<u> </u>	
		Debt securities	<u> </u>	
	Japanese corporate bonds	Foreign corporate bonds	Securitized products	Other
Beginning balance	1,310	41,177	15,192	10,483
Total realized and unrealized gains	,	,	ŕ	ŕ
(losses):				
Included in earnings*1	_	(307)	(3,032)	(65)
Included in other comprehensive		(001)	(=,===)	(00)
income (loss)*2	_	(84)	1	(489)
Purchases	_	12,604	74,736	139
Sales		12,004	74,730	(10)
Settlements	_	(18,540)	(3,283)	(954)
Transfers into level 3*3	_	(10,540)	(3,283)	(934)
	(1.210)	(6.072)	_	_
Transfers out of level 3*4	(1,310)	(6,972)		
Ending balance		27,878	83,614	9,104
Changes in unrealized gains (losses) relating to instruments still held at reporting date:  Included in earnings*1	_	(468)	(2,278)	(65)
		¥7••111•		
		Yen in millio iscal year ended Mar		
		Assets	CH 31, 2019	
	Availa	ble-for-sale securities	3	
		Debt securities		
	Japanese corporate bonds	Foreign corporate bonds	Securitized products	Other investments
Beginning balance	_	27,878	83,614	9,104
Total realized and unrealized gains (losses):				
Included in earnings*1 Included in other comprehensive	_	465	562	276
income (loss)*2	_	131	1	_
Purchases	_	5,787	94,696	4
Sales	_	´ <del>_</del>	´ —	(6)
Settlements	_	(10,435)	(13,601)	(2,460)
Transfers into level 3*3	_	20,863	5,284	_
Transfers out of level 3*4	_	(21,985)	(5,473)	_
Ending balance		22,704	165,083	6,918
Changes in unrealized gains (losses) relating to instruments still held at reporting date:				
Included in earnings*1		219	510	441

<sup>\*1</sup> Earning effects are included in financial services revenue in the consolidated statements of income.

<sup>\*2</sup> Unrealized gains (losses) are included in unrealized gains (losses) on securities in the consolidated statements of comprehensive income.

- \*3 Certain corporate bonds and certain securitized products were transferred into level 3 because differences between the fair value determined by indicative quotes from dealers and the fair value determined by internally developed prices became significant and the observability of the inputs used decreased.
- \*4 Certain corporate bonds and certain securitized products were transferred out of level 3 because observable market data became available.

Level 3 assets include certain securitized products, certain private equity investments, and certain domestic and foreign corporate bonds for which quoted prices are not available in a market and where there is less transparency around inputs. In determining the fair value of such assets, Sony uses third-party information such as indicative quotes from dealers without adjustment. For validating the fair values, Sony primarily uses internal models which include management judgment or estimation of assumptions that market participants would use in pricing the asset.

## (2) Assets and liabilities that are measured at fair value on a nonrecurring basis

Sony also has assets and liabilities that are required to be remeasured to fair value on a nonrecurring basis when certain circumstances occur. During the fiscal years ended March 31, 2018 and 2019, such remeasurements to fair value related primarily to the following:

	During	the fiscal ye	ar ended Ma	arch 31, 2018
	Est	imated fair v	value	Amounts included in
	Level 1	Level 2	Level 3	earnings
Assets:				
Long-lived assets impairments	_		19,375	(53,741)
				(53,741)
	During	the fiscal ye	ar ended Ma	arch 31, 2019
		the fiscal yes		Amounts
Assets:	Est	imated fair	value	Amounts included in
Assets: Long-lived assets impairments	Est	imated fair	value	Amounts included in
	Est	imated fair	Value Level 3	Amounts included in earnings
Long-lived assets impairments	Est	imated fair	<u>Level 3</u> 4,389	Amounts included in earnings

# Long-lived assets impairments

Sony recorded impairment losses of 23,860 million yen for the fiscal year ended March 31, 2017, included within the Semiconductors segment, related to long-lived assets in the camera module business asset group. Due to a decrease in the projected future demand of camera modules, Sony conducted a strategic review of the business and its market conditions. Following this review, Sony reduced the corresponding estimated future cash flows and the estimated ability to recover the entire carrying amount of the long-lived assets within the period applicable to the impairment determination, resulting in an impairment charge. Sony decided to halt all development and production of high-functionality camera modules for external sales during the fiscal year ended March 31, 2017.

Sony recorded an impairment loss of 31,341 million yen and 19,172 million yen for the fiscal years ended March 31, 2018 and 2019, respectively, included within the MC segment, related to long-lived assets in the smartphone business asset group. Due to smartphone sales results and changes in the business environment since January 2018 as well as the expectation of continued difficulty in the business environment thereafter, Sony conducted strategic reviews of its future profitability forecast for the smartphone business. Following these reviews, Sony reduced the corresponding estimated future cash flows of this business and the estimated ability to recover the carrying amount of the long-lived assets within the period applicable to the impairment determination, resulting in the impairment charges.

Sony recorded an impairment loss of 12,858 million yen for the fiscal year ended March 31, 2019, included within All Other, related to long-lived assets and goodwill in the storage media business asset group. As a result

of conducting a strategic review of the business and evolving market trends, Sony reduced the corresponding estimated future cash flows of this business and the estimated ability to recover the entire carrying amount of the long-lived assets and goodwill within the period applicable to the impairment determination, resulting in an impairment charge for the fiscal year ended March 31, 2019.

These measurements are classified as level 3 because significant unobservable inputs, such as the condition of the assets or projections of future cash flows, the timing of such cash flows and the discount rate reflecting the risk inherent in future cash flows, were considered in the fair value measurements. For the fiscal year ended March 31, 2017, a discount rate of 10% and projected declining revenue rates ranging from (1)% to 8% were used in the fair value measurements related to the long-lived assets for the camera module business. For the fiscal year ended March 31, 2018, a discount rate of 8.5% and projected revenue growth rates ranging from (8)% to 6% were used in the fair value measurements related to the long-lived assets for the smartphone business. For the fiscal year ended March 31, 2019, a discount rate of 8.5% and projected revenue growth rates ranging from (26)% to 24% were used in the fair value measurements related to the long-lived assets for the smartphone business and a discount rate of 8.9% and projected revenue growth rates ranging from (34)% to 21% were used in the fair value measurements related to the long-lived assets and goodwill for the storage media business.

#### Goodwill impairments

Sony recorded an impairment loss of 112,069 million yen during the fiscal year ended March 31, 2017 against the goodwill of the Production & Distribution reporting unit in the Pictures segment. Refer to Note 9. Sony's determination of the estimated fair value of the reporting unit was based on the present value of expected future cash flows including a terminal value which is based on an exit price using an earnings multiple applied to the final year of the forecasted earnings, and which also takes into consideration a control premium. These measurements are classified as level 3 because significant unobservable inputs, such as the projections of future cash flows, the timing of such cash flows, the earnings multiple, the growth rates beyond the forecast and mid-range plan periods, and the discount rate reflecting the risk inherent in future cash flows, were considered in the fair value measurements. An earnings multiple of 9.0x, growth rates beyond the forecast and mid-range plan periods ranging from 3.0% to 4.5% and a discount rate of 9.5% were used in the fair value measurement.

#### (3) Financial instruments

The estimated fair values by fair value hierarchy level of certain financial instruments that are not reported at fair value are summarized as follows:

		Yen in mill	ions	
	March 31, 2018			
Estimated fair value				Carrying amount
Level 1	Level 2	Level 3	Total	Total
	1,686,842		1,686,842	1,522,415
	1,686,842		1,686,842	1,522,415
_	877,576	_	877,576	848,973
	766,558		766,558	738,404
	1,644,134		1,644,134	1,587,377
		Von in mill	ions	
				Comming
				Carrying
· 14		fair value		amount
Level 1	Estimated Level 2	fair value  Level 3	Total	
Level 1	Level 2		Total	Total
Level 1			Total  1,861,384	amount
Level 1	Level 2			Total
	Level 2 1,861,384		1,861,384	amount   Total     1,685,504
Level 1	Level 2 1,861,384		1,861,384	amount   Total     1,685,504
	Level 2 1,861,384		1,861,384	amount   Total     1,685,504
	1,861,384 1,861,384		1,861,384 1,861,384	1,685,504 1,685,504
	1,861,384 1,861,384 737,529		1,861,384 1,861,384 737,529	1,685,504 1,685,504 1,685,504
	1,861,384 1,861,384		1,861,384 1,861,384	1,685,504 1,685,504
			March 31,     Estimated fair value	Estimated fair value           Level 1         Level 2         Level 3         Total           —         1,686,842         —         1,686,842           —         1,686,842         —         1,686,842           —         877,576         —         877,576           —         766,558         —         766,558

The summary excludes cash and cash equivalents, call loans, time deposits, notes and accounts receivable, trade and contract assets, call money, short-term borrowings, notes and accounts payable, trade and deposits from customers in the banking business because the carrying values of these financial instruments approximated their fair values due to their short-term nature. The summary also excludes held-to-maturity securities disclosed in Note 7.

Cash and cash equivalents, call loans and call money are classified in level 1. Time deposits, short-term borrowings, deposits from customers in the banking business are classified in level 2. Held-to-maturity securities, included in marketable securities and securities investments and other in the consolidated balance sheets, primarily include debt securities with quoted prices that are traded less frequently than exchange-traded instruments, such as the majority of government bonds and corporate bonds and are substantially all classified in level 2. The fair values of housing loans in the banking business, included in securities investments and other in the consolidated balance sheets, were estimated based on the discounted future cash flows using interest rates reflecting London Interbank Offered Rate base yield curves with certain risk premiums. The fair values of long-term debt including the current portion and investment contracts included in policyholders' account in the life

insurance business were estimated based on either the market value or the discounted future cash flows using Sony's current incremental borrowing rates for similar liabilities.

## 14. Derivative instruments and hedging activities

Sony has certain financial instruments including financial assets and liabilities acquired in the normal course of business. Such financial instruments are exposed to market risk arising from the changes in foreign currency exchange rates and interest rates. In applying a consistent risk management strategy for the purpose of reducing such risk, Sony uses derivative financial instruments, which include foreign exchange forward contracts, foreign currency option contracts, and interest rate swap agreements (including interest rate and currency swap agreements). Certain other derivative financial instruments are entered into in the Financial Services segment for asset-liability management ("ALM") purposes. These instruments are executed with creditworthy financial institutions, and virtually all foreign currency contracts are denominated in U.S. dollars, euros and other currencies of major countries. These derivatives generally mature or expire within six months after the balance sheet date. Other than derivatives utilized in the Financial Services segment for ALM, Sony does not use derivative financial instruments for trading or speculative purposes. These derivative transactions utilized for ALM in the Financial Services segment are executed within certain limits in accordance with an internal risk management policy.

Derivative financial instruments held by Sony are classified and accounted for as described below.

## Fair value hedges

Both the derivatives designated as fair value hedges and the hedged items are reflected at fair value in the consolidated balance sheets. Changes in the fair value of the derivatives designated as fair value hedges, as well as offsetting changes in the carrying value of the underlying hedged items, are recognized in income. For the fiscal years ended March 31, 2017, 2018 and 2019, these fair value hedges were fully effective. In addition, there were no amounts excluded from the assessment of hedge effectiveness of fair value hedges.

# Cash flow hedges

Changes in the fair value of derivatives designated as cash flow hedges are initially recorded in other comprehensive income ("OCI") and reclassified into earnings when the hedged transaction affects earnings. For the fiscal years ended March 31, 2017, 2018 and 2019, these cash flow hedges were fully effective. In addition, there were no amounts excluded from the assessment of hedge effectiveness for cash flow hedges.

#### Derivatives not designated as hedges

Changes in the fair value of derivatives not designated as hedges are recognized in income.

A description of the purpose and classification of the derivative financial instruments held by Sony is as follows:

## Foreign exchange forward contracts and foreign currency option contracts

Foreign exchange forward contracts and purchased and written foreign currency option contracts are utilized primarily to limit the exposure affected by changes in foreign currency exchange rates on cash flows generated or anticipated by Sony's transactions and accounts receivable and payable denominated in foreign currencies. The majority of written foreign currency option contracts are a part of range forward contract arrangements and expire in the same month with the corresponding purchased foreign currency option contracts.

Sony also entered into foreign exchange forward contracts and range forward contracts which effectively fixed the cash flows from certain forecasted purchase and sale transactions denominated in foreign currencies. Accordingly, these derivatives have been designated as cash flow hedges.

Foreign exchange forward contracts and foreign currency option contracts that do not qualify as hedges are marked-to-market with changes in value recognized in other income and expenses.

Foreign exchange forward contracts, foreign currency option contracts and currency swap agreements held by certain subsidiaries in the Financial Services segment are marked-to-market with changes in value recognized in financial services revenue.

## Interest rate swap agreements (including interest rate and currency swap agreements)

Interest rate swap agreements are utilized primarily to lower funding costs, to diversify sources of funding and to limit Sony's exposure associated with underlying debt instruments and available-for-sale debt securities resulting from adverse fluctuations in interest rates, foreign currency exchange rates and changes in fair values.

Interest rate swap agreements entered into in the Financial Services segment are used for reducing the risk arising from the changes in the fair value of fixed rate available-for-sale debt securities. These derivatives are considered to be a hedge against changes in the fair value of available-for-sale debt securities in the Financial Services segment. Accordingly, these derivatives have been designated as fair value hedges.

Certain subsidiaries in the Financial Services segment have interest rate swap agreements as part of their ALM, which are marked-to-market with changes in value recognized in financial service revenues.

Any other interest rate swap agreements that do not qualify as hedges, which are used for reducing the risk arising from changes of variable rate debt, are marked-to-market with changes in value recognized in other income and expenses.

## Other agreements

Certain subsidiaries in the Financial Services segment have equity future contracts, equity swap agreements, interest rate swaption agreements, other currency contracts and hybrid financial instruments as part of their ALM, which are marked-to-market with changes in value recognized in financial services revenue. The hybrid financial instruments, disclosed in Note 7 as debt securities, contained embedded derivatives that are not required to be bifurcated because the entire instruments are carried at fair value.

Yen in millions

The estimated fair values of Sony's outstanding derivative instruments are summarized as follows:

			I CII III	IIIIIIIIIII			
	Balance sheet location	Fair value Balance sheet location		Fair	value		
Derivatives designated as		Marc	ch 31		Mar	rch 31	
hedging instruments	Asset derivatives	2018	2019	Liability derivatives	2018	2019	
Interest rate contracts	Prepaid expenses and other current assets	12	10	Current liabilities: Other	160	141	
Interest rate contracts	Other assets: Other	286		Liabilities: Other	10,281	8,274	
Foreign exchange contracts	Prepaid expenses and	200			,	0,271	
	other current assets	48	131	Current liabilities: Other	1,535	42	
		346	242		11,976	8,457	
			Yen in	millions			
	Balance sheet location	Fair	value	Balance sheet location	Fair	value	
Derivatives not designated as		Marc	ch 31		Mar	ch 31	
hedging instruments	Asset derivatives	2018	2019	Liability derivatives	2018	2019	
Interest rate contracts	Prepaid expenses and	10	20	Comment linkilities of Other	200	244	
_	other current assets	12		Current liabilities: Other	299	344	
Interest rate contracts	Other assets: Other	1,871	882	Liabilities: Other	3,612	3,637	
Foreign exchange contracts	Prepaid expenses and other current assets	34,737	8,807	Current liabilities: Other	17,149	11,549	
Foreign exchange contracts	Other assets: Other	366	72	Liabilities: Other	1,281	1,059	
Equity contracts	Prepaid expenses and						
Equity community	other current assets	2,194	444	Current liabilities: Other	1,407	7,776	
		39,180	10,244		23,748	24,365	
Total derivatives		39,526	10,486		35,724	32,822	

Presented below are the effects of derivative instruments on the consolidated statements of income and the consolidated statements of comprehensive income for the fiscal years ended March 31, 2017, 2018 and 2019.

	Yen in 1	millions		
			gains or (losses on derivative in	
Derivatives under fair value	Location of gains or (losses) recognized	Fiscal y	year ended Ma	rch 31
hedging relationships	in income on derivative instruments	2017	2018	2019
Interest rate contracts	Financial services revenue	1,967	(52)	(1,835)
Foreign exchange contracts	Foreign exchange loss, net	(31)		
Total		1,936	(52)	(1,835)
	Yen in 1	millions		
Derivatives under cash flow	Affected line item in consolidated	Fiscal y	year ended Ma	rch 31
hedging relationships	statements of income	2017	2018	2019
		gains (	recognized in u losses) on deri nts in OCI (be	vative
Foreign exchange contracts	_	6,715	(2,295)	2,315
Total		6,715	(2,295)	2,315
		unreali deriva	nts reclassified ized gains (loss ative instrume ed OCI (effecti (before tax)	ses) on nts in
Foreign exchange contracts	Cost of sales	(5,583)	1,111	(1,093)
Total		(5,583)	1,111	(1,093)
	Yen in m	illions		
			ts of gains or in income on instruments	
Derivatives not designated as	Location of gains or (losses) recognized in	Fiscal y	year ended Ma	rch 31
hedging instruments	income on derivative instruments	2017	2018	2019
Interest rate contracts	Financial services revenue	(935)	(1,544)	(3,192)
Foreign exchange contracts	Financial services revenue	(5,365)	2,013	(8,198)
Foreign exchange contracts	Foreign exchange loss, net	12,339	21,370	(7,437)
Equity contracts	Financial services revenue	(18,597)	(11,665)	(7,649)
Total		(12,558)	10,174	(26,476)

The following table summarizes additional information, including notional amounts, for each type of derivative:

Yen in millions			
March 31, 2018		March 3	31, 2019
Notional amount	Fair value	Notional amount	Fair value
1,105,393	7,071	701,880	(304)
206	1	53,846	179
156	(1)	58,825	(35)
1,230,254	4,613	959,777	(5,564)
84,623	3,502	68,513	2,084
398,291	(12,171)	339,934	(11,346)
_	_	5,300	(18)
106,876	787	58,725	308
_	_	63,107	(7,640)
	Notional amount  1,105,393 206 156 1,230,254 84,623 398,291	March 31, 2018           Notional amount         Fair value           1,105,393         7,071           206         1           156         (1)           1,230,254         4,613           84,623         3,502           398,291         (12,171)           —         —	Notional amount         Fair value         Notional amount           1,105,393         7,071         701,880           206         1         53,846           156         (1)         58,825           1,230,254         4,613         959,777           84,623         3,502         68,513           398,291         (12,171)         339,934           —         5,300           106,876         787         58,725

All derivatives are recognized as either assets or liabilities in the consolidated balance sheets on a gross basis, but certain subsidiaries have entered into master netting agreements or other similar agreements, which are mainly International Swaps and Derivatives Association (ISDA) Master Agreements. An ISDA Master Agreement is an agreement between two counterparties that may have multiple derivative contracts with each other, and such ISDA Master Agreement may provide for the net settlement of all or a specified group of these derivative contracts, through a single payment, in a single currency, in the event of a default on or affecting any one derivative contract, or a termination event affecting all or a specified group of derivative contracts. Presented below are the effects of offsetting derivative assets, derivative liabilities, financial assets and financial liabilities as of March 31, 2018 and 2019.

	Yen in millions					
		As of March 3	1, 2018			
	Gross amounts presented in the	Gross amounts no consolidated baland subject to master ne	e sheet that are			
	consolidated balance sheet	Financial instruments	Cash collateral	Net amounts		
Derivative assets subject to master						
netting agreements	15,404	7,724	449	7,231		
Derivative assets not subject to						
master netting agreements	24,122			24,122		
Total assets	39,526	7,724	449	31,353		
Derivative liabilities subject to						
master netting agreements	34,455	8,326	14,334	11,795		
Derivative liabilities not subject to						
master netting agreements	1,269			1,269		
Repurchase, securities lending and						
similar arrangements	335,586	334,246		1,340		
Total liabilities	371,310	342,572	14,334	14,404		
		Yen in mill	ions			
		Yen in mill As of March 3				
	Gross amounts		1, 2019 ot offset in the ce sheet that are			
	Gross amounts presented in the consolidated balance sheet	As of March 3 Gross amounts no consolidated balance	1, 2019 ot offset in the ce sheet that are	Net amounts		
Derivative assets subject to master	presented in the consolidated	As of March 3 Gross amounts no consolidated balance subject to master ne Financial	1, 2019 ot offset in the se sheet that are tting agreements	Net amounts		
Derivative assets subject to master	presented in the consolidated balance sheet	As of March 3 Gross amounts no consolidated balanc subject to master ne Financial instruments	1, 2019 of offset in the respect that are string agreements  Cash collateral			
netting agreements	presented in the consolidated	As of March 3 Gross amounts no consolidated balance subject to master ne Financial	1, 2019 ot offset in the se sheet that are tting agreements	Net amounts 3,277		
netting agreements  Derivative assets not subject to	presented in the consolidated balance sheet  6,855	As of March 3 Gross amounts no consolidated balanc subject to master ne Financial instruments	1, 2019 of offset in the respect that are string agreements  Cash collateral	3,277		
netting agreements  Derivative assets not subject to master netting agreements	presented in the consolidated balance sheet  6,855  3,631	As of March 3 Gross amounts no consolidated balance subject to master new Financial instruments  3,442	1, 2019  ot offset in the ee sheet that are titing agreements  Cash collateral	3,277		
netting agreements  Derivative assets not subject to	presented in the consolidated balance sheet  6,855	As of March 3 Gross amounts no consolidated balanc subject to master ne Financial instruments	1, 2019 of offset in the respect that are string agreements  Cash collateral	3,277		
netting agreements  Derivative assets not subject to master netting agreements	presented in the consolidated balance sheet  6,855  3,631	As of March 3 Gross amounts no consolidated balance subject to master new Financial instruments  3,442	1, 2019  ot offset in the ee sheet that are titing agreements  Cash collateral	3,277		
netting agreements  Derivative assets not subject to master netting agreements  Total assets  Derivative liabilities subject to master netting agreements	presented in the consolidated balance sheet  6,855  3,631	As of March 3 Gross amounts no consolidated balance subject to master new Financial instruments  3,442	1, 2019  ot offset in the ee sheet that are titing agreements  Cash collateral	3,277		
netting agreements  Derivative assets not subject to master netting agreements  Total assets  Derivative liabilities subject to master netting agreements  Derivative liabilities not subject to	6,855  3,631  10,486	As of March 3 Gross amounts no consolidated balance subject to master new Financial instruments  3,442	1, 2019 to offset in the ce sheet that are titing agreements  Cash collateral  136	3,277 3,631 6,908 1,711		
netting agreements  Derivative assets not subject to master netting agreements  Total assets  Derivative liabilities subject to master netting agreements  Derivative liabilities not subject to master netting agreements	6,855  3,631  10,486	As of March 3 Gross amounts no consolidated balance subject to master new Financial instruments  3,442	1, 2019 to offset in the ce sheet that are titing agreements  Cash collateral  136	3,277 3,631 6,908		
netting agreements  Derivative assets not subject to master netting agreements  Total assets  Derivative liabilities subject to master netting agreements  Derivative liabilities not subject to master netting agreements  Repurchase, securities lending and	6,855  3,631  10,486  25,872  6,950	As of March 3 Gross amounts no consolidated balance subject to master new Financial instruments  3,442  3,442	1, 2019 to offset in the ce sheet that are titing agreements  Cash collateral  136	3,277 3,631 6,908 1,711		
netting agreements  Derivative assets not subject to master netting agreements  Total assets  Derivative liabilities subject to master netting agreements  Derivative liabilities not subject to master netting agreements	6,855  3,631  10,486	As of March 3 Gross amounts no consolidated balance subject to master new Financial instruments  3,442	1, 2019 to offset in the ce sheet that are titing agreements  Cash collateral  136	3,277 3,631 6,908 1,711		

# 15. Pension and severance plans

### (1) Defined benefit and severance plans

Upon terminating employment, employees of Sony Corporation and its subsidiaries in Japan are entitled, under most circumstances, to lump-sum indemnities or pension payments as described below. Sony Corporation and certain of its subsidiaries' pension plans utilize a point-based plan under which a point is added every year reflecting the individual employee's performance over that year. Under the point-based plan, the amount of payment is determined based on the sum of cumulative points from past services and interest points earned on the cumulative points regardless of whether or not the employee is voluntarily retiring.

Under the plans, in general, the defined benefits cover 65% of the indemnities under existing regulations to employees. The remaining indemnities are covered by severance payments by the companies. The pension benefits are payable at the option of the retiring employee either in a lump-sum amount or monthly pension payments. Contributions to the plans are funded through several financial institutions in accordance with the applicable laws and regulations.

From April 1, 2012, Sony Corporation and substantially all of its subsidiaries in Japan have modified existing defined benefit pension plans such that life annuities will no longer accrue additional service benefits, with those participants instead accruing fixed-term annuities. The defined benefit pension plans were closed to new participants and a defined contribution plan was also introduced.

In addition, several of Sony's foreign subsidiaries have defined benefit pension plans or severance indemnity plans, which cover substantially all of their employees. Under such plans, the related cost of benefits is currently funded or accrued. Benefits awarded under these plans are based primarily on the current rate of pay and length of service.

The components of net periodic benefit costs for the fiscal years ended March 31, 2017, 2018 and 2019 were as follows:

Ven in millions

# Japanese plans:

	Ten in inimons			
	Fiscal year ended March 31			
	2017	2018	2019	
Service cost	26,811	25,185	23,128	
Interest cost	5,912	8,024	7,020	
Expected return on plan assets	(17,829)	(16,440)	(16,695)	
Recognized actuarial loss	20,436	16,099	15,365	
Amortization of prior service costs	(9,490)	(8,693)	(7,864)	
Net periodic benefit costs	25,840	24,175	20,954	

#### Foreign plans:

	Yen in millions			
	Fiscal year ended March 31			
	2017	2018	2019	
Service cost	2,958	3,181	2,780	
Interest cost	10,426	10,393	10,083	
Expected return on plan assets	(11,000)	(11,687)	(11,797)	
Amortization of net transition asset	9	5	_	
Recognized actuarial loss	2,552	3,014	2,656	
Amortization of prior service costs	(463)	(574)	(269)	
Losses on curtailments and settlements	43	1,058	1,804	
Net periodic benefit costs	<u>4,525</u>	5,390	5,257	

The components of net periodic benefit costs other than service cost for the fiscal year ended March 31, 2019 are included within other income in the consolidated statements of income.

The estimated net actuarial loss and prior service cost for the defined benefit pension plans that will be amortized from accumulated other comprehensive income into net periodic benefit costs over the next fiscal year are 17,759 million yen and 7,153 million yen, respectively.

The changes in the benefit obligation and plan assets as well as the funded status and composition of amounts recognized in the consolidated balance sheets were as follows:

Japanese plans		Foreign plans	
Yen in millions  March 31		Yen in m	illions
		March 31	
2018	2019	2018	2019
1,004,676	1,010,574	352,442	356,397
25,185	23,128	3,181	2,780
8,024	7,020	10,393	10,083
_	_	573	462
21,920	29,295	663	1,700
_	_	8,858	(1,554)
_	_	(5,422)	(6,120)
_	_	_	1,947
(8)	6	_	_
(49,223)	(35,069)	(14,291)	(13,777)
1,010,574	1,034,954	356,397	351,918
699,008	711,077	259,177	269,745
38,896	18,701	13,426	15,243
_	_	6,181	(838)
6,090	36,875	9,040	8,542
_	_	573	462
_	_	(5,285)	(5,960)
(32,917)	(24,449)	(13,367)	(12,445)
711,077	742,204	269,745	274,749
(299,497)	(292,750)	(86,652)	(77,169)
	Yen in mi  March  2018  1,004,676 25,185 8,024 — 21,920 — (8) (49,223)  1,010,574  699,008 38,896 — 6,090 — (32,917) 711,077	Yen in millions           March 31         2018         2019           1,004,676         1,010,574         25,185         23,128           8,024         7,020         —           21,920         29,295         —         —           (8)         6         (49,223)         (35,069)           1,010,574         1,034,954           699,008         711,077         38,896         18,701           —         —         —           6,090         36,875         —           —         —         —           (32,917)         (24,449)           711,077         742,204	Yen in millions         Yen in millions           March 31         March 2018           2018         2019         2018           1,004,676         1,010,574         352,442           25,185         23,128         3,181           8,024         7,020         10,393           —         573           21,920         29,295         663           —         8,858           —         (5,422)           —         (8)         6           —         (49,223)         (35,069)         (14,291)           1,010,574         1,034,954         356,397           699,008         711,077         259,177           38,896         18,701         13,426           —         —         6,181           6,090         36,875         9,040           —         —         573           —         —         573           —         —         573           —         —         573           —         —         573           —         —         573           —         —         5,285           (32,917)

Amounts recognized in the consolidated balance sheets consist of:

	Japanese plans Yen in millions March 31		Foreign plans Yen in millions March 31	
	2018	2019	2018	2019
Noncurrent assets	3,426	3,476	8,396	14,745
Current liabilities	_	_	(4,121)	(4,412)
Noncurrent liabilities	(302,923)	(296,226)	(90,927)	(87,502)
Ending balance	(299,497)	(292,750)	(86,652)	(77,169)

Amounts recognized in accumulated other comprehensive income, excluding tax effects, consist of:

	Japanese plans Yen in millions		Foreign plans Yen in millions	
	March	March 31		31
	2018	2019	2018	2019
Prior service cost (credit)	(16,723)	(8,859)	(488)	(45)
Net actuarial loss	299,852	311,128	73,404	71,906
Ending balance	283,129	302,269	72,916	71,861

The accumulated benefit obligations for all defined benefit pension plans were as follows:

	Japanes	Japanese plans		Foreign plans	
	Yen in n	nillions	Yen in r	nillions	
	Marc	h 31	March 31		
	2018	2019	2018	2019	
d benefit obligations	1,005,557	1,029,910	340,353	336,185	

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

	Japanese plans  Yen in millions		Foreign plans Yen in millions	
	Marc	March 31		h 31
	2018	2019	2018	2019
Projected benefit obligations	998,629	1,022,235	301,046	200,596
Accumulated benefit obligations	993,612	1,017,191	293,834	196,928
Fair value of plan assets	695,706	726,009	215,510	123,937

Weighted-average assumptions used to determine benefit obligations as of March 31, 2018 and 2019 were as follows:

	Japanese plans  March 31		Foreign plans March 31	
	2018	2019	2018	2019
Discount rate	0.8%	0.6%	2.9%	2.8%
Rate of compensation increase	*	*	2.6	2.3

<sup>\*</sup> Substantially all of Sony's Japanese pension plans were point-based. Point-based plans do not incorporate a measure of compensation rate increases.

Weighted-average assumptions used to determine the net periodic benefit costs for the fiscal years ended March 31, 2017, 2018 and 2019 were as follows:

	Japanese plans Fiscal year ended March 31			Foreign plans Fiscal year ended March 31		
	2017	2018	2019	2017	2018	2019
Discount rate	0.6%	0.9%	0.8%	3.2%	3.1%	2.9%
Expected return on plan assets	2.7	2.4	2.6	4.8	4.6	4.4
Rate of compensation increase	*	*	*	2.8	2.4	2.6

<sup>\*</sup> Substantially all of Sony's Japanese pension plans were point-based. Point-based plans do not incorporate a measure of compensation rate increases.

Sony reviews these assumptions for changes in circumstances.

The weighted-average rate of compensation increase is calculated based only on the pay-related plans. The point-based plans discussed above are excluded from the calculation because payments made under the plan are not based on employee compensation.

The mortality rate assumptions are based on life expectancy and death rates for different types of participants.

To determine the expected long-term rate of return on pension plan assets, Sony considers the current and expected asset allocations, as well as the historical and expected long-term rates of returns on various categories of plan assets. Sony's pension investment policy recognizes the expected growth and the variability risk associated with the long-term nature of pension liabilities, the returns and risks of diversification across asset classes, and the correlation among assets. The asset allocations are designed to maximize returns consistent with levels of liquidity and investment risk that are considered prudent and reasonable. While the pension investment

policy gives appropriate consideration to recent market performance and historical returns, the investment assumptions utilized by Sony are designed to achieve a long-term return consistent with the long-term nature of the corresponding pension liabilities.

The investment objectives of Sony's plan assets are designed to generate returns that will enable the plans to meet their future obligations. The precise amount for which these obligations will be settled depends on future events, including the retirement dates and life expectancy of the plans' participants. The obligations are estimated using actuarial assumptions, based on the current economic environment and other pertinent factors. Sony's investment strategy balances the requirement to generate returns, using potentially higher yielding assets such as equity securities, with the need to control risk in the portfolio with less volatile assets, such as fixed-income securities. Risks include, among others, inflation, volatility in equity values and changes in interest rates that could negatively impact the funding level of the plans, thereby increasing its dependence on contributions from Sony. To mitigate any potential concentration risk, thorough consideration is given to balancing the portfolio among industry sectors and geographies, taking into account interest rate sensitivity, dependence on economic growth, currency and other factors that affect investment returns. The target allocations as of March 31, 2019, are, as a result of Sony's asset liability management, 30% of equity securities, 51% of fixed income securities and 19% of other investments for the pension plans of Sony Corporation and most of its subsidiaries in Japan, and, on a weighted average basis, 22% of equity securities, 53% of fixed income securities and 25% of other investments for the pension plans of foreign subsidiaries.

The fair values of the assets held by Japanese and foreign plans, which are classified in accordance with the fair value hierarchy described in Note 2, are as follows:

	Japanese plans						
	Yen in millions						
	Fair value at March 31,	Fair value measurements using inputs considered as					
Asset class	2018	Level 1	Level 2	Level 3			
Cash and cash equivalents	9,446	9,446	_	_			
Equity:							
Equity securities*1	138,443	134,091	4,352	_			
Fixed income:							
Government bonds*2	225,879	_	225,879	_			
Corporate bonds*3	79,323		79,323	_			
Asset-backed securities*4	121	_	121	_			
Commingled funds*5	122,950		122,950	_			
Commodity funds*6	21,136	_	21,136	_			
Private equity* <sup>7</sup>	24,144			24,144			
Hedge funds*8	70,204	_	_	70,204			
Real estate and other*9	19,431			19,431			
Total	711,077	143,537	453,761	113,779			

		Japanese plans		
		Yen in m	illions	
	Fair value at March 31,		value measure inputs conside	
Asset class	2019	Level 1	Level 2	Level 3
Cash and cash equivalents	10,689	10,689	_	_
Equity:				_
Equity securities*1	140,559	135,713	4,846	_
Fixed income:				_
Government bonds*2	210,817	_	210,817	_
Corporate bonds*3	97,519	_	97,519	_
Asset-backed securities*4	1,537		1,537	_
Commingled funds*5	138,455		138,455	_
Commodity funds*6	21,674		21,674	_
Private equity*7	27,956	_		27,956
Hedge funds*8	71,606	_		71,606
Real estate and other*9	21,392			21,392
Total	742,204	146,402	474,848	120,954

Japanese plans

- \*1 Includes approximately 52 percent and 51 percent of Japanese equity securities, and 48 percent and 49 percent of foreign equity securities for the fiscal years ended March 31, 2018 and 2019, respectively.
- \*2 Includes approximately 49 percent and 48 percent of debt securities issued by Japanese national and local governments, and 51 percent and 52 percent of debt securities issued by foreign national and local governments for the fiscal years ended March 31, 2018 and 2019, respectively.
- \*3 Includes debt securities issued by Japanese and foreign corporation and government related agencies.
- \*4 Includes primarily mortgage-backed securities.
- \*5 Commingled funds represent pooled institutional investments, including primarily investment trusts. They include approximately 51 percent and 50 percent of investments in equity, 48 percent and 49 percent of investments in fixed income, and 1 percent and 1 percent of investments in other for the fiscal years ended March 31, 2018 and 2019, respectively.
- \*6 Represents commodity futures funds.
- \*7 Includes multiple private equity funds of funds that primarily invest in venture, buyout, and distressed markets in the United States and Europe.
- \*8 Includes primarily funds that invest in a portfolio of a broad range of hedge funds to diversify the risks and reduce the volatilities associated with a single hedge fund.
- \*9 Includes primarily private real estate investment trusts.

		Foreign	plans	
		Yen in millions		
	Fair value	Fair value at March 31,  Fair value using in		
Asset class	2018	Level 1	Level 2	Level 3
Cash and cash equivalents	2,377	2,377	_	_
Equity:				
Equity securities*1	30,916	29,814	1,102	_
Fixed income:				
Government bonds*2	78,129		78,129	_
Corporate bonds*3	26,424	_	21,121	5,303
Asset-backed securities	960	_	960	_
Insurance contracts*4	18,670	_	5,941	12,729
Commingled funds*5	75,785	_	75,785	_
Real estate and other*6	36,484	_	10,508	25,976
Total	269,745	32,191	193,546	44,008
		Foreign	plans	
		Yen in m	illions	
	Fair value at March 31,		value measure inputs conside	
Asset class	2019	Level 1	Level 2	Level 3
Cash and cash equivalents	4,340	4,340	_	_
Equity:				
Equity securities*1	23,766	23,113	653	_
Fixed income:				
Government bonds*2	84,761	_	84,761	_
Corporate bonds*3	32,749	_	32,749	_
Asset-backed securities	1,115	_	1,115	_

Insurance contracts\*4
Commingled funds\*5

Real estate and other\*6

Total

18.308

76,503

33,207

274,749

27,453

5,814

76,503

11,118

212,713

12,494

22,089

34,583

Each level in the fair value hierarchy in which each plan asset is classified is determined based on inputs used to measure the fair values of the asset, and does not necessarily indicate the risks or rating of the asset.

The following is a description of the valuation techniques used to measure Japanese and foreign plan assets at fair value. The valuation techniques are applied consistently from period to period.

Equity securities are valued at the closing price reported in the active market in which the individual securities are traded. These assets are generally classified as level 1.

The fair value of fixed income securities is typically estimated using pricing models, quoted prices of securities with similar characteristics or discounted cash flows and are generally classified as level 2.

<sup>\*1</sup> Includes primarily foreign equity securities.

<sup>\*2</sup> Includes primarily foreign government debt securities.

<sup>\*3</sup> Includes primarily foreign corporate debt securities.

<sup>\*4</sup> Represents annuity contracts with or without profit sharing.

<sup>\*5</sup> Commingled funds represent pooled institutional investments including mutual funds, common trust funds, and collective investment funds. They are primarily comprised of foreign equities and fixed income investments.

<sup>\*6</sup> Includes primarily private real estate investment trusts.

Commingled funds are typically valued using the net asset value provided by the administrator of the fund and reviewed by Sony. The net asset value is based on the value of the underlying assets owned by the fund, minus liabilities and divided by the number of shares or units outstanding. These assets are classified as level 1, level 2 or level 3 depending on availability of quoted market prices.

Commodity funds are valued using inputs that are derived principally from or corroborated by observable market data. These assets are generally classified as level 2.

Private equity and private real estate investment trust valuations require significant judgment due to the absence of quoted market prices, the inherent lack of liquidity and the long-term nature of such assets. These assets are initially valued at cost and are reviewed periodically utilizing available and relevant market data to determine if the carrying value of these assets should be adjusted. These investments are classified as level 3.

Hedge funds are valued using the net asset value as determined by the administrator or custodian of the fund. These investments are classified as level 3.

The following table sets forth a summary of changes in the fair values of Japanese and foreign plans' level 3 assets for the fiscal years ended March 31, 2018 and 2019:

	Japanese plan	s	
	Yen in million	S	
Fair value measu	rement using signific (Level 3)	ant unobservable	inputs
Private equity	Hedge funds	Real estate and other	Total
21,790	67,235	17,925	106,950
1,483	636	425	2,544
871	2,333	1,081	4,285
24,144	70,204	19,431	113,779
4,428	659	1,622	6,709
(616)	743	339	466
27,956	71,606	21,392	120,954
	Foreign plans		
Fair value measu		eant unobservable	inputs
Insurance contracts	Corporate bonds	Real estate and other	Total
_	6,926	22,929	29,855
_	, <u> </u>	1,101	1,101
12,651	(1,256)	12	11,407
_	_	1,181	1,181
78	(367)	753	464
12,729	5,303	25,976	44,008
736	_	559	1,295
(389)	_	(3,809)	(4,198)
_	(5,540)	123	(5,417)
(582)	237	(760)	(1,105)
(/		(/	
	Private equity  21,790 1,483 871 24,144 4,428 (616) 27,956  Fair value measu  Insurance contracts  12,651 78 12,729 736 (389)	Ven in million   Fair value measurement using signific (Level 3)	Private equity         Hedge funds         Real estate and other           21,790         67,235         17,925           1,483         636         425           871         2,333         1,081           24,144         70,204         19,431           4,428         659         1,622           (616)         743         339           27,956         71,606         21,392           Foreign plans           Yen in millions           Fair value measurement using significant unobservable (Level 3)           Insurance contracts         Corporate bonds         Real estate and other           —         6,926         22,929           —         1,101           12,651         (1,256)         12           —         1,181           78         (367)         753           12,729         5,303         25,976           736         —         559           (389)         —         (3,809)           —         (5,540)         123

<sup>\*</sup> Primarily consists of translation adjustments.

Sony makes contributions to its defined benefit pension plans as deemed appropriate by management after considering the fair value of plan assets, expected return on plan assets and the present value of benefit

obligations. Sony expects to contribute approximately 10 billion yen to the Japanese plans and approximately 8 billion yen to the foreign plans during the fiscal year ending March 31, 2020.

The expected future benefit payments are as follows:

	Japanese plans	Foreign plans
Fiscal year ending March 31	Yen in millions	Yen in millions
2020	41,345	17,972
2021	40,700	17,892
2022	42,487	18,138
2023	43,740	18,896
2024	46,345	19,441
2025 - 2029	238,416	107,668

# (2) Defined contribution plans

Total defined contribution expenses for the fiscal years ended March 31, 2017, 2018 and 2019 were as follows:

Y	Yen in millions		
Fiscal y	Fiscal year ended March 31		
2017	2018	2019	
3,412	3,237	3,353	
10,458	11,379	11,602	

#### 16. Stockholders' equity

## (1) Common stock

Changes in the number of shares of common stock issued and outstanding during the fiscal years ended March 31, 2017, 2018 and 2019 have resulted from the following:

	Number of shares
Balance at March 31, 2016	1,262,493,760
Exercise of stock acquisition rights	1,269,900
Balance at March 31, 2017	1,263,763,660
Issuance of new shares	218,000
Exercise of stock acquisition rights	2,565,700
Conversion of convertible bonds	4,789
Balance at March 31, 2018	1,266,552,149
Issuance of new shares	149,900
Exercise of stock acquisition rights	4,525,300
Conversion of convertible bonds	2,992
Balance at March 31, 2019	1,271,230,341

At March 31, 2019, 36,179,258 shares of common stock would be issued upon the conversion or exercise of all convertible bonds and stock acquisition rights outstanding.

Conversions of convertible bonds into common stock are accounted for in accordance with the provisions of the Companies Act of Japan (*Kaishaho*) and related regulations (collectively the "Companies Act") by crediting approximately one-half of the conversion proceeds to the common stock account and the remainder to the additional paid-in capital account.

Sony Corporation may purchase its own shares at any time by a resolution of the Board of Directors up to the retained earnings available for dividends to shareholders, in accordance with the Companies Act. No common stock had been acquired by a resolution of the Board of Directors during the fiscal years ended March 31, 2017 and 2018.

Sony's Board of Directors resolved and authorized the repurchase of shares of its own common stock pursuant to the Companies Act at the meeting of the Board of Directors held on February 8, 2019. During the year ended March 31, 2019, Sony repurchased 19,309,100 shares of its common stock for an amount of 100,000 million yen under the above resolution.

## (2) Retained earnings

The amount of statutory retained earnings of Sony Corporation available for dividends to shareholders as of March 31, 2019 was 541,928 million yen. The appropriation of retained earnings for the fiscal year ended March 31, 2019, including cash dividends for the six-month period ended March 31, 2019, has been incorporated in the consolidated financial statements. This appropriation of retained earnings was approved at the meeting of the Board of Directors of Sony Corporation held on April 26, 2019 and was then recorded in the statutory books of account, in accordance with the Companies Act.

Retained earnings include Sony's equity in undistributed earnings of affiliated companies accounted for by the equity method in the amount of 37,859 million yen and 46,477 million yen at March 31, 2018 and 2019, respectively.

# (3) Other comprehensive income

Changes in accumulated other comprehensive income, net of tax, by component for the fiscal years ended March 31, 2017, 2018 and 2019 were as follows:

	Yen in millions				
	Unrealized gains (losses) on securities	Unrealized gains (losses) on derivative instruments	Pension liability adjustment	Foreign currency translation adjustments	Total
Balance at March 31, 2016	140,736	(1,198)	(371,739)	(421,117)	(653,318)
Other comprehensive income before reclassifications  Amounts reclassified out of accumulated other	(27,007)	5,028	54,513	(17,988)	14,546
comprehensive income	(3,286)	(3,888)	8,719		1,545
Net other comprehensive income	(30,293)	1,140	63,232	(17,988)	16,091
Less: Other comprehensive income attributable to					
noncontrolling interests	(16,192)		229	(2,495)	(18,458)
Balance at March 31, 2017	126,635	(58)	(308,736)	(436,610)	(618,769)
		Ye	en in millions		
	Unrealized gains (losses) on securities	Unrealized gains (losses) on derivative instruments	Pension liability adjustment	Foreign currency translation adjustments	Total
Balance at March 31, 2017	gains (losses)	Unrealized gains (losses) on derivative	Pension liability	currency translation	
Balance at March 31, 2017 Other comprehensive income before reclassifications Amounts reclassified out of accumulated other	gains (losses) on securities	Unrealized gains (losses) on derivative instruments	Pension liability adjustment	currency translation adjustments	
Other comprehensive income before reclassifications	gains (losses) on securities 126,635	Unrealized gains (losses) on derivative instruments  (58)	Pension liability adjustment (308,736)	currency translation adjustments (436,610)	(618,769)
Other comprehensive income before reclassifications  Amounts reclassified out of accumulated other	gains (losses) on securities 126,635 2,013	Unrealized gains (losses) on derivative instruments (58)	Pension liability adjustment (308,736)	currency translation adjustments (436,610) (4,480)	(618,769) (2,983)
Other comprehensive income before reclassifications  Amounts reclassified out of accumulated other comprehensive income*	gains (losses) on securities 126,635 2,013 (943)	Unrealized gains (losses) on derivative instruments  (58)  (2,295)	Pension liability adjustment (308,736)  1,779  10,611	currency translation adjustments (436,610) (4,480) (1,855)	(618,769) (2,983) 8,924
Other comprehensive income before reclassifications  Amounts reclassified out of accumulated other comprehensive income*  Net other comprehensive income  Less: Other comprehensive income attributable to	gains (losses) on securities 126,635 2,013 (943) 1,070	Unrealized gains (losses) on derivative instruments  (58)  (2,295)	Pension liability adjustment (308,736)  1,779  10,611  12,390	currency translation adjustments (436,610) (4,480) (1,855) (6,335)	(618,769) (2,983) 8,924 5,941

	Yen in millions				
	Unrealized gains (losses) on securities	Unrealized gains (losses) on derivative instruments	Pension liability adjustment	Foreign currency translation adjustments	Total
Balance at March 31, 2018	126,191	(1,242)	(296,444)	(445,251)	(616,746)
Cumulative effect of ASU2016-01 Other comprehensive income before	(15,526)	_	_	_	(15,526)
reclassifications Amounts reclassified out of accumulated other	33,124	2,316	(23,448)	10,071	22,063
comprehensive income*	161	(1,093)	9,488	(1,627)	6,929
Net other comprehensive income Less: Other comprehensive income attributable to	33,285	1,223	(13,960)	8,444	28,992
noncontrolling interests	8,915		53	(1,578)	7,390
Balance at March 31, 2019	135,035	(19)	(310,457)	(435,229)	<u>(610,670)</u>

<sup>\*</sup> Foreign currency translation adjustments were transferred from accumulated other comprehensive income to net income as a result of a complete or substantially complete liquidation or sale of certain foreign subsidiaries and affiliates.

Reclassifications out of accumulated other comprehensive income for the fiscal years ended March 31, 2017, 2018 and 2019 were as follows:

	Ye	n in millio	18	
Comprehensive income components	Amounts reclassified from accumulated other comprehensive income		her	Affected line items in consolidated statements of income
	2017	2018	2019	
Unrealized gains (losses) on securities	(4,560)	(646)	235	Financial services revenue
	(30)	(561)	_	Gain on sale of securities investments,
				net
Total before tax	(4,590)	(1,207)	235	
Tax expense or (benefit)	1,304	264	(74)	
Net of tax	(3,286)	(943)	161	
Unrealized gains (losses) on derivative				
instruments	(5,583)	1,111	(1,093)	Cost of sales
Total before tax	(5,583)	1,111	(1,093)	
Tax expense or (benefit)	1,695			
Net of tax	(3,888)	1,111	(1,093)	
Pension liability adjustment	13,044	11,034	9,891	*
Tax expense or (benefit)	(4,325)	(423)	(403)	
Net of tax	8,719	10,611	9,488	
Foreign currency translation adjustments				Foreign exchange loss, net and other
	_	(1,855)	(1,627)	operating (income) expense, net
Tax expense or (benefit)				
Net of tax		(1,855)	(1,627)	
Total amounts reclassified out of				
accumulated other comprehensive				
income, net of tax	1,545	8,924	6,929	

<sup>\*</sup> The amortization of pension and postretirement benefit components are included in the computation of net periodic pension cost. Refer to Note 15.

## (4) Equity transactions with noncontrolling interests

Net income attributable to Sony Corporation's stockholders and transfers (to) from the noncontrolling interests for the fiscal years ended March 31, 2017, 2018 and 2019 were as follows:

	Yen in millions			
	Fiscal y	Fiscal year ended March 31		
	2017	2018	2019	
Net income attributable to Sony Corporation's stockholders Transfers (to) from the noncontrolling interests:	73,289	490,794	916,271	
Decrease in additional paid-in capital for purchase of additional shares in consolidated subsidiaries	(53,927)	(74)	(22,775)	
Change from net income attributable to Sony Corporation's stockholders and transfers (to) from the noncontrolling interests	19,362	490,720	893,496	

During the fiscal year ended March 31, 2017, Sony obtained full ownership of its U.S.-based music publishing subsidiary by acquiring the 50% interest in the subsidiary held by the Estate of Michael Jackson (the "Estate"). The aggregate cash consideration paid to the Estate was 750 million U.S. dollars. The difference between the cash consideration paid and the decrease in the carrying amount of the noncontrolling interests was recognized as a decrease to additional paid-in capital of 70,730 million yen.

During the fiscal year ended March 31, 2019, Sony acquired from the Estate the 25.1% interest in Nile Acquisition LLC ("Nile") held by the Estate. A total of 287.5 million U.S. dollars was paid to the Estate for the acquisition. The difference between the cash consideration paid and the carrying amount of the noncontrolling interests was recognized as a decrease to additional paid-in capital of 295.9 million U.S. dollars. As a result of the acquisition, Nile became a wholly-owned subsidiary of Sony.

#### 17. Stock-based compensation plans

The stock-based compensation expense for the fiscal years ended March 31, 2017, 2018 and 2019 was 2,737 million yen, 5,249 million yen and 5,499 million yen, respectively. The total cash received from exercises under all of the stock-based compensation plans during the fiscal years ended March 31, 2017, 2018 and 2019 was 2,730 million yen, 7,129 million yen and 12,757 million yen, respectively. Sony issued new shares upon exercise of these rights.

Sony has a stock-based compensation incentive plan for selected directors, corporate executive officers and employees in the form of a stock acquisition rights plan. The stock acquisition rights generally have three year graded vesting schedules and are exercisable up to ten years from the date of grant.

The weighted-average fair value per share at the date of grant of stock acquisition rights granted during the fiscal years ended March 31, 2017, 2018 and 2019 was 1,291 yen, 2,045 yen and 1,593 yen, respectively. The fair value of stock acquisition rights granted on the date of grant and used to recognize compensation expense for the fiscal years ended March 31, 2017, 2018 and 2019 was estimated using the Black-Scholes option-pricing model with the following weighted-average assumptions:

	Fiscal year ended March 31		
	2017	2018	2019
Weighted-average assumptions			
Risk-free interest rate	1.10%	1.14%	1.37%
Expected lives	6.83 years	6.55 years	5.98 years
Expected volatility*	40.00%	38.49%	32.52%
Expected dividends	0.66%	0.40%	0.35%

<sup>\*</sup> Expected volatility was based on the historical volatilities of Sony Corporation's common stock over the expected life of the stock acquisition rights.

A summary of the activities regarding the stock acquisition rights plan during the fiscal year ended March 31, 2019 is as follows:

	Fiscal year ended March 31, 2019			
	Number of shares	Weighted- average exercise price	Weighted- average remaining life	Total intrinsic value
		Yen	Years	Yen in millions
Outstanding at beginning of the fiscal year	14,005,900	3,017		
Granted	2,907,300	5,108		
Exercised	4,525,300	2,819		
Forfeited or expired	174,000	3,862		
Outstanding at end of the fiscal year	12,213,900	3,665	7.46	11,133
Exercisable at end of the fiscal year	5,820,800	2,855	5.84	9,867

The total intrinsic value of shares exercised under the stock acquisition rights plan during the fiscal years ended March 31, 2017, 2018 and 2019 was 1,541 million yen, 6,970 million yen and 13,325 million yen, respectively.

As of March 31, 2019, there was 5,159 million yen of total unrecognized compensation expense related to nonvested stock acquisition rights. This expense is expected to be recognized over a weighted-average period of 1.94 years.

#### 18. Kumamoto Earthquake

In April 2016, a series of earthquakes occurred in the Kumamoto region of Japan. These earthquakes caused damage to certain fixed assets, including buildings, machinery and equipment, as well as inventories in manufacturing sites located in the Kumamoto region.

For the fiscal year ended March 31, 2017, Sony incurred incremental losses and associated expenses including repair costs of fixed assets and a loss on disposal of inventories directly related to the damage caused by the earthquakes of 16,682 million yen. These losses and expenses were primarily recorded in cost of sales in the consolidated statements of income and were offset by insurance recoveries of 10,682 million yen, as described below. In addition, Sony incurred other expenses of 9,365 million yen, which included idle facility costs at manufacturing sites. These expenses were primarily recorded in cost of sales in the consolidated statements of income.

Sony has insurance policies that cover certain damage directly caused by the earthquakes for Sony Corporation and certain of its subsidiaries, including damage at manufacturing sites. The insurance policies cover the damage and costs associated with fixed assets and inventories, as well as incremental expenses including removal and cleaning costs. These policies also provide business interruption coverage, including coverage for lost profits. For the fiscal year ended March 31, 2017, Sony recorded insurance receivables of 10,682 million yen, representing a portion of the insurance recoveries that were deemed probable of collection up to the extent of the amount of corresponding losses recognized in the same period. Of the insurance receivables recorded during the period, substantially all relate to damaged assets and inventories, and do not include amounts for business interruption or lost profits. Sony concluded that the recoveries from insurance claims are probable based on the coverage under valid policies, communications with the insurance carriers, Sony's past claims history with the insurance carriers, and Sony's assessment that the insurance carriers have the financial ability to pay the claims. In March 2017, 10,000 million yen was agreed to by the insurance carriers. These receivables are recorded within other receivables, whereas the remaining receivables of 682 million yen is recorded in other current assets in the consolidated balance sheets as of the fiscal year ended March 31, 2017.

Sony has underwritten 2,000 million yen in reinsurance policies for the above insurance carriers related to the policy described above. The amount was recorded in other current liabilities in the consolidated balance sheets as of the fiscal year ended March 31, 2017 and was paid to the insurance carriers in the fiscal year ended March 31, 2018.

In April 2017, the remaining insurance claims of 10,000 million yen that were mainly for business interruption coverage were agreed to by the carriers. As a result, the total amount of insurance recoveries paid to

Sony in April 2017 was 20,000 million yen. 9,318 million yen, which was the difference between 20,000 million yen and 10,682 million yen as described above, was recorded in other operating revenue for the fiscal year ended March 31, 2018. The proceeds from insurance recoveries were presented as cash flows from operating activities in the consolidated statements of cash flows for the fiscal year ended March 31, 2018.

#### 19. Revenue

#### (1) Contract balances

Contract assets and contract liabilities are comprised of the following:

	Yen in	Y en in millions		
	April 1, 2018	March 31, 2019		
ontract assets	15,241	19,147		
ontract liabilities*	258,327	254,646		

<sup>\*</sup> Contract liabilities are included in the consolidated balance sheets as "Other", both current and non-current.

Contract liabilities principally relate to customer advances received prior to performance. Revenues of 201,628 million yen were recognized during the fiscal year ended March 31, 2019, which were included in the balance of contract liabilities at April 1, 2018. Revenues of 49,223 million yen were recognized during the fiscal year ended March 31, 2019 from performance obligations satisfied prior to March 31, 2018.

### (2) Performance obligations

Remaining (unsatisfied or partially unsatisfied) performance obligations represent future revenues not yet recorded for firm orders that have not yet been performed. Sony applies practical expedients to exclude certain information about the remaining performance obligations, primarily related to contracts with an expected original duration of less than one year, and sales-based or usage-based royalty revenue on licenses of intellectual property. The following table shows the summary of the transaction prices allocated to remaining performance obligations that are unsatisfied at March 31, 2019, of which more than half are expected to be recognized within one year and substantially all within three years.

	1 ch in minions
	March 31, 2019
Pictures — Motion Pictures and Television Productions*1	476,197
Pictures — Media Networks	25,996
Music*2	93,783
Others	45,597

Von in millione

# (3) Contract costs

Contract costs are comprised as follows:

	Yen in	Yen in millions	
	April 1, 2018	March 31, 2019	
Incremental costs of obtaining a contract	7,703	6,581	

<sup>\*1</sup> For Motion Pictures and Television Productions in the Pictures segment, Sony has included all contracts regardless of duration.

<sup>\*2</sup> Amount included in the Music segment primarily consists of minimum royalty guarantees or fixed fees in contracts related to license revenue for ongoing access to an evolving library of content. These contracts also include sales-based or usage-based royalties that are excluded from the amount above, of which substantially all are recognized as revenue within three years.

Sony applies practical expedients to recognize the incremental costs of obtaining a contract as an expense if the amortization period of the asset that otherwise would have been recognized is one year or less. The amortization of 7,666 million yen was recognized during the fiscal year ended March 31, 2019. The incremental costs of obtaining a contract are primarily recognized in the MC segment for the internet-related service business and amortized to expense over the contract period.

# (4) Disaggregation of revenue

For the breakdown of sales and operating revenue by segments, product categories and geographies, refer to Note 29.

# 20. Restructuring charges

As part of its effort to improve the performance of the various businesses, Sony has undertaken a number of restructuring initiatives. Sony defines restructuring initiatives as activities initiated by Sony, which are designed to generate a positive impact on future profitability. These activities include exiting a business or product category, implementing a headcount reduction program, realignment of its manufacturing sites to low-cost areas, utilizing the services of third-party original equipment and design manufacturers (OEMs and ODMs), a review of its development and design structure, and the streamlining of its sales and administrative functions. The restructuring activities are generally short term in nature and are generally completed within one year of initiation.

The changes in the accrued restructuring charges for the fiscal years ended March 31, 2017, 2018 and 2019 are as follows:

		Yen in millions				
	Employee termination benefits	Non-cash write-downs and disposals, net*	Other associated costs	Total		
Balance at March 31, 2016	22,531	_	11,735	34,266		
Restructuring costs	9,854	42,717	7,142	59,713		
Non-cash charges	_	(42,717)	_	(42,717)		
Cash payments	(19,759)	_	(8,871)	(28,630)		
Adjustments	(992)		(839)	(1,831)		
Balance at March 31, 2017	11,634	_	9,167	20,801		
Restructuring costs	18,999	2,233	1,147	22,379		
Non-cash charges	_	(2,233)	_	(2,233)		
Cash payments	(9,950)	_	(6,352)	(16,302)		
Adjustments	(1,197)		226	(971)		
Balance at March 31, 2018	19,486	_	4,188	23,674		
Restructuring costs	24,449	2,731	5,825	33,005		
Non-cash charges	_	(2,731)	_	(2,731)		
Cash payments	(19,150)	_	(2,555)	(21,705)		
Adjustments	955		(357)	598		
Balance at March 31, 2019	25,740		<u></u>	32,841		

<sup>\*</sup> Significant asset impairments excluded from restructuring charges are described in Note 13.

Total costs incurred in connection with these restructuring programs by segment for the fiscal years ended March 31, 2017, 2018 and 2019 are as follows:

	Yen in millions					
		Fiscal year ended March 31, 2017				
	Employee termination benefits	Other associated costs*	Total net restructuring charges	Depreciation associated with restructured assets	Total	
Game & Network Services	225	6	231	_	231	
Music	2,116	1,474	3,590	_	3,590	
Pictures	2,467	_	2,467	_	2,467	
Home Entertainment & Sound	68	684	752	_	752	
<b>Imaging Products &amp; Solutions</b>	563	77	640	_	640	
Mobile Communications	516	172	688	138	826	
Semiconductors	4	(13)	(9)	_	(9)	
Financial Services	_	_	_	_	_	
All Other and Corporate	3,895	47,459	51,354	364	51,718	
Total	9,854	49,859	59,713	502	60,215	

	Yen in millions				
		Fiscal y	ear ended March	31, 2018	
	Employee termination benefits	Other associated costs*	Total net restructuring charges	Depreciation associated with restructured assets	Total
Game & Network Services	_	_	_	_	_
Music	6,358	272	6,630	_	6,630
Pictures	2,922	_	2,922	_	2,922
Home Entertainment & Sound	846	6	852	_	852
Imaging Products & Solutions	530	94	624	_	624
Mobile Communications	2,008	18	2,026	0	2,026
Semiconductors	28	_	28	_	28
Financial Services		_	_	_	_
All Other and Corporate	6,307	2,990	9,297	26	9,323
Total	18,999	3,380	22,379	26	22,405

	Yen in millions				
		Fiscal y	year ended March	31, 2019	
	Employee termination benefits	Other associated costs*	Total net restructuring charges	Depreciation associated with restructured assets	Total
Game & Network Services	_	_	_	_	_
Music	2,991	201	3,192	_	3,192
Pictures	4,795	_	4,795	_	4,795
Home Entertainment & Sound	_	_	_	_	_
Imaging Products & Solutions	_	_	_	_	_
Mobile Communications	11,437	4,574	16,011	86	16,097
Semiconductors	_	_	_	_	_
Financial Services	_	_	_	_	_
All Other and Corporate	5,226	3,781	9,007		9,007
Total	<u>24,449</u>	<u>8,556</u>	33,005	86	33,091

<sup>\*</sup> Other associated costs includes non-cash write-downs and disposals, net

Depreciation associated with restructured assets as used in the context of the disclosures regarding restructuring activities refers to the increase in depreciation expense caused by revising the useful life and the salvage value of depreciable fixed assets under an approved restructuring plan. Any impairment of the assets is recognized immediately in the period it is identified.

#### Retirement programs

Sony has undergone several headcount reduction programs to further reduce operating costs primarily in an effort to improve the performance of certain segments related to the Electronics business and reduce cost at the headquarters function. Through measures including the realignment of its manufacturing sites, a review of its development and design structure, and the streamlining of its sales and administrative functions, Sony has continued to implement a company-wide (including headquarters) rationalization. Sony intends to reallocate and optimize its workforce through programs including work reassignments and outplacements. The employee termination benefits costs in the above table are included in selling, general and administrative in the consolidated statements of income.

#### Music

In an effort to optimize the organization and improve the performance of the Music segment, Sony has implemented a number of restructuring initiatives targeting operating effectiveness and cost reduction. These activities resulted in restructuring charges primarily consisting of headcount reductions totaling 6,630 million yen and 3,192 million yen for the fiscal years ended March 31, 2018 and 2019, respectively.

#### **Pictures**

In an effort to optimize the organization and improve the performance of the Pictures segment, Sony has implemented a number of restructuring initiatives targeting operating effectiveness and cost reduction. These activities resulted in restructuring charges primarily consisting of headcount reductions totaling 4,795 million yen for the fiscal year ended March 31, 2019.

#### MC

In an effort to improve the performance of the smartphone business in the MC segment, Sony has implemented a number of restructuring initiatives targeting profitability improvement. These activities resulted in restructuring charges primarily consisting of the closure and consolidation of manufacturing sites as well as sales offices overseas totaling 16,011 million yen for the fiscal year ended March 31, 2019.

## All Other and Corporate

As described in Note 26, Sony and Murata Manufacturing Co., Ltd. signed a binding definitive agreement on October 31, 2016 to transfer the Sony Group's battery business to the Murata Group, which was completed on September 1, 2017. Sony classified certain assets and liabilities related to the battery business as held for sale and, as a result of the fair value valuation of these assets and liabilities, recorded impairment losses of 42,298 million yen in other operating (income) expense, net in the consolidated statements of income for the fiscal year ended March 31, 2017.

# 21. Supplemental consolidated statements of income information

# (1) Other operating (income) expense, net

Sony records transactions in other operating (income) expense, net due to either the nature of the transaction or in consideration of factors including the relationship to Sony's core operations.

Other operating (income) expense, net is comprised of the following:

	Yen in millions			
	March 31			
	2017	2018	2019	
Gain on sale of Sony City Osaki*1	(4,914)	(4,914)	_	
Gain on remeasurement of EMI shares*2		— (	116,939)	
Gain on sale and issuance of M3 shares*3	(37,167)	(18)	(61)	
(Gain) loss on purchase/sale of interests in subsidiaries and affiliates, net*4	(4,259)	(29,595)	(1,496)	
(Gain) loss on sale, disposal or impairment of assets, net*5	195,341	38,599	46,928	
	149,001	4,072	<u>(71,568)</u>	

<sup>\*1</sup> A portion of gain on sale and leaseback transactions is deferred and is amortized on a straight-line basis over the lease term.

#### (2) Research and development costs

Research and development costs charged to cost of sales for the fiscal years ended March 31, 2017, 2018 and 2019 were 447,456 million yen, 458,518 million yen and 481,202 million yen, respectively.

#### (3) Advertising costs

Advertising costs included in selling, general and administrative expenses for the fiscal years ended March 31, 2017, 2018 and 2019 were 363,815 million yen, 407,106 million yen and 385,500 million yen, respectively.

# (4) Shipping and handling costs

Shipping and handling costs for finished goods included in selling, general and administrative expenses for the fiscal years ended March 31, 2017, 2018 and 2019 were 42,195 million yen, 46,252 million yen and 51,757 million yen, respectively, which included the internal transportation costs of finished goods.

<sup>\*2</sup> Refer to Notes 5 and 25.

<sup>\*3</sup> Refer to Note 5.

<sup>\*4</sup> Refer to Notes 25 and 26.

<sup>\*5</sup> Refer to Notes 9, 13, 20 and 26.

## 22. Income taxes

Domestic and foreign components of income before income taxes and the provision for current and deferred income taxes attributable to such income are summarized as follows:

	Yen in millions			
	Fiscal year ended March 31			
	2017	2018	2019	
Income before income taxes:				
Sony Corporation and all subsidiaries in Japan	166,158	436,494	310,020	
Foreign subsidiaries	85,461	262,555	701,628	
	251,619	699,049	1,011,648	
Income taxes — Current:				
Sony Corporation and all subsidiaries in Japan	49,739	69,697	82,081	
Foreign subsidiaries	50,521	57,988	84,667	
	100,260	127,685	166,748	
Income taxes — Deferred:				
Sony Corporation and all subsidiaries in Japan	11,478	29,640	17,907	
Foreign subsidiaries	12,320	(5,555)	(139,557)	
	23,798	24,085	(121,650)	
Total income tax expense	124,058	151,770	45,098	

A reconciliation of the differences between the Japanese statutory tax rate and the effective tax rate is as follows:

	Fiscal year ended March 31		
	2017	2018	2019
Statutory tax rate	31.7%	31.5%	31.5%
Non-deductible expenses	2.3	0.8	0.7
Income tax credits	(2.9)	(0.6)	(1.6)
Change in statutory tax rate and law	0.3	(1.2)	(0.3)
Change in valuation allowances (other than the reversal of Sony Americas Holding Inc. ("SAHI") and its U.S.			
consolidated tax filing group below)	7.3	(5.2)	2.3
The reversal of valuation allowances of SAHI and its U.S.		` ′	
consolidated tax filing group	_	_	(15.3)
Change in deferred tax liabilities on undistributed earnings			, ,
of foreign subsidiaries and corporate joint ventures	(1.4)	(0.8)	(0.1)
Lower tax rate applied to life and non-life insurance			
business in Japan	(2.2)	(0.8)	(0.5)
Foreign income tax differential	(3.0)	(2.6)	(6.4)
Adjustments to tax reserves	(1.1)	(0.8)	(0.3)
Effect of equity in net income of affiliated companies	0.0	0.0	0.0
The remeasurement gain for the equity interest in EMI	_	_	(2.4)
Impairment of goodwill in the Pictures segment	15.0	_	_
Other	3.3	1.4	(3.1)
Effective income tax rate	49.3%	21.7%	4.5%

In March 2016, the Japanese legislature enacted tax law changes which included further lowering of the national corporate tax rate, limiting the annual use of net operating loss carryforwards to 55% of taxable income for the period ended March 31, 2018, and to 50% of taxable income for periods beginning on or after April 1, 2018. As a result, the statutory tax rate from the fiscal year ended March 31, 2017 onward will be approximately 31.5%. On December 22, 2017, the U.S. Tax Reform Act was signed into law, making significant changes to the

U.S. tax rules. Changes include, but are not limited to, a corporate tax rate decrease from 35% to 21% effective for tax years beginning January 1, 2018 and the transition of U.S. international taxation from a worldwide tax system to a modified territorial system, with a one-time mandatory transition tax on previously deferred foreign earnings of U.S. subsidiaries.

Sony is required to record the effects of a tax law change in the period of enactment; however, shortly after the enactment of the U.S. Tax Reform Act, the U.S. Securities and Exchange Commission staff issued SAB 118, which allows a company to record a provisional amount when it does not have the necessary information available, prepared, or analyzed in reasonable detail to complete its accounting for the change in the tax law. The measurement period ends when the company has obtained, prepared and analyzed the information necessary to finalize its accounting, but cannot extend beyond one year.

Sony calculated its best estimate of the impact of the U.S. Tax Reform Act in the March 31, 2018 income tax provision in accordance with its understanding of the U.S. Tax Reform Act and guidance available at that time. Sony has completed its accounting for all enactment date effects and no material adjustment was recorded to the provisional amount in the fiscal year ended March 31, 2019.

In addition to lowering the statutory corporate tax rate from 35% to 21%, the U.S. Tax Reform Act also eliminated certain deductions, included new restrictions on the deduction for interest, introduced a new tax regime called the Base Erosion Anti-Abuse Tax or "BEAT", and changed how foreign earnings of the U.S. group are subject to tax. The U.S. Tax Reform Act also enhanced and extended the option to claim accelerated depreciation and amortization deductions by allowing full expensing of qualified property, including film costs, through 2022. The U.S. Tax Reform Act also provided for beneficial treatment of certain income derived by a U.S. entity from outside the United States (referred to as Foreign Derived Intangible Income or "FDII").

The BEAT creates a minimum tax on multinational corporations by requiring companies subject to the BEAT to pay the greater of their regular tax liability (less certain credits, including foreign tax credits) or 10% for taxable years beginning in 2019 (6.25% for Sony's fiscal year ended March 31. 2019) of a modified tax base which adds back certain related party payments. The BEAT comparison to regular tax must be done each year if the taxpayer's "base erosion" related party payments exceed 3% of total deductions on its U.S. tax return. Sony expects to exceed the 3% threshold for the fiscal year ended March 31, 2019 based on current estimates available as of March 31, 2019. This threshold calculation will be finalized at the time of the filing of the tax return. If Sony exceeds the 3% threshold and is subject to the BEAT rules, Sony expects that its BEAT tax liability will exceed its regular tax liability as a result of the use of foreign tax credits to reduce its regular tax liability. Sony is required to account for BEAT as a period cost and to record deferred taxes at the regular statutory rate. Accordingly, Sony has recorded its U.S. deferred tax assets and liabilities at 21%.

Sony provides a valuation allowance for its deferred tax assets, which includes net operating losses, temporary differences and tax credits, when it is more likely than not that some portion, or all, of its deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income in the relevant tax jurisdiction. As of December 31, 2018, SAHI and its U.S. consolidated tax filing group has continued its profitable trend, primarily as a result of the G&NS segment and the Music segment. Based on an assessment of the available positive and negative evidence, in particular recent profit history and forecasted profitability, in the quarter ended December 31, 2018, Sony reversed the valuation allowances recorded against a significant portion of the deferred tax assets in the United States, primarily for net operating losses, temporary differences and certain tax credits, and recorded a tax benefit of 154,201 million yen.

The significant components of deferred tax assets and liabilities are as follows:

Image: Propertical parameter of the par		Yen in millions	
Deferred tax assets:   Operating loss carryforwards for tax purposes		Marc	ch 31
Operating loss carryforwards for tax purposes         439,206         413,494           Accrued pension and severance costs         106,161         103,652           Amortization including film costs         95,069         86,196           Warranty reserves and accrued expenses         104,410         108,515           Future insurance policy benefits         33,812         36,683           Inventory         15,792         19,716           Depreciation         43,353         34,638           Tax credit carryforwards         125,327         117,471           Reserve for doubtful accounts         8,534         9,136           Impairment of investments         14,146         12,278           Deferred revenue         14,478         19,081           Other         132,800         169,897           Gross deferred tax assets         1,133,088         1,30,757           Less: Valuation allowance         (899,835)         (723,114)           Total deferred tax assets         233,253         407,643           Deferred tax liabilities:         (166,717)         (169,244)           Future insurance policy benefits         (167,058)         (181,052)           Unbilled accounts receivable in the Pictures segment         (63,196)         (44,842)		2018	2019
Accrued pension and severance costs         106,161         103,652           Amortization including film costs         95,069         86,196           Warranty reserves and accrued expenses         104,410         108,515           Future insurance policy benefits         33,812         36,683           Inventory         15,792         19,716           Depreciation         43,353         34,638           Tax credit carryforwards         125,327         117,471           Reserve for doubtful accounts         8,534         9,136           Impairment of investments         14,146         12,278           Deferred revenue         14,478         19,081           Other         132,800         169,897           Gross deferred tax assets         1,133,088         1,130,757           Less: Valuation allowance         (899,835)         (723,114)           Total deferred tax assets         (166,717)         (169,244)           Future insurance acquisition costs         (166,717)         (169,244)           Future insurance policy benefits         (167,058)         (181,052)           Unbilled accounts receivable in the Pictures segment         (63,196)         (44,842)           Unrealized gains on securities         (33,082)         (75,573)	Deferred tax assets:		
Amortization including film costs         95,069         86,196           Warranty reserves and accrued expenses         104,410         108,515           Future insurance policy benefits         33,812         36,683           Inventory         15,792         19,716           Depreciation         43,353         34,638           Tax credit carryforwards         125,327         117,471           Reserve for doubtful accounts         8,534         9,136           Impairment of investments         14,146         12,278           Deferred revenue         14,478         19,081           Other         132,800         169,897           Gross deferred tax assets         1,133,088         1,130,757           Less: Valuation allowance         (899,835)         (723,114)           Total deferred tax assets         233,253         407,643           Deferred tax liabilities:         (166,717)         (169,244)           Future insurance policy benefits         (166,717)         (169,244)           Future insurance policy benefits         (163,196)         (44,842)           Unrealized gains on securities         (83,298)         (75,573)           Gain on equity securities         (33,082)           Intangible assets acquired through	Operating loss carryforwards for tax purposes	439,206	413,494
Warranty reserves and accrued expenses         104,410         108,515           Future insurance policy benefits         33,812         36,683           Inventory         15,792         19,716           Depreciation         43,353         34,638           Tax credit carryforwards         125,327         117,471           Reserve for doubtful accounts         8,534         9,136           Impairment of investments         14,146         12,278           Deferred revenue         14,478         19,081           Other         132,800         169,897           Gross deferred tax assets         1,133,088         1,130,757           Less: Valuation allowance         (899,835)         (723,114)           Total deferred tax assets         (89,835)         (723,114)           Total deferred tax assets         (166,717)         (169,244)           Future insurance acquisition costs         (166,717)         (169,244)           Future insurance policy benefits         (167,058)         (181,052)           Unbilled accounts receivable in the Pictures segment         (63,196)         (44,842)           Unrealized gains on securities         (33,082)         (75,573)           Gain on equity securities         (23,949)         (23,949)	Accrued pension and severance costs		103,652
Future insurance policy benefits         33,812         36,683           Inventory         15,792         19,716           Depreciation         43,353         34,638           Tax credit carryforwards         125,327         117,471           Reserve for doubtful accounts         8,534         9,136           Impairment of investments         14,146         12,278           Deferred revenue         14,478         19,081           Other         132,800         169,897           Gross deferred tax assets         1,133,088         1,130,757           Less: Valuation allowance         (899,835)         (723,114)           Total deferred tax assets         233,253         407,643           Deferred tax liabilities:         (166,717)         (169,244)           Future insurance policy benefits         (167,058)         (181,052)           Unbilled accounts receivable in the Pictures segment         (63,196)         (44,842)           Unrealized gains on securities         (83,298)         (75,573)           Gain on equity securities         —         (33,082)           Intangible assets acquired through stock exchange offerings         (33,082)           Intangible assets derived from EMI Music Publishing acquisition         —         (93,979)	Amortization including film costs	95,069	86,196
Inventory         15,792         19,716           Depreciation         43,353         34,638           Tax credit carryforwards         125,327         117,471           Reserve for doubtful accounts         8,534         9,136           Impairment of investments         14,146         12,278           Deferred revenue         14,478         19,081           Other         132,800         169,897           Gross deferred tax assets         1,133,088         1,130,757           Less: Valuation allowance         (899,835)         (723,114)           Total deferred tax assets         233,253         407,643           Deferred tax liabilities:         (166,717)         (169,244)           Future insurance policy benefits         (167,058)         (181,052)           Unbilled accounts receivable in the Pictures segment         (63,196)         (44,842)           Unrealized gains on securities         (83,298)         (75,573)           Gain on equity securities         -         (33,082)           Intangible assets acquired through stock exchange offerings         (23,949)         (23,949)           Undistributed earnings of foreign subsidiaries and corporate joint ventures         (14,160)         (15,758)           Investment in M3         (35,802) </td <td></td> <td>104,410</td> <td>108,515</td>		104,410	108,515
Depreciation         43,353         34,638           Tax credit carryforwards         125,327         117,471           Reserve for doubtful accounts         8,534         9,136           Impairment of investments         14,146         12,278           Deferred revenue         14,478         19,081           Other         132,800         169,897           Gross deferred tax assets         1,133,088         1,130,757           Less: Valuation allowance         (899,835)         (723,114)           Total deferred tax assets         233,253         407,643           Deferred tax liabilities:         (166,717)         (169,244)           Insurance acquisition costs         (167,058)         (181,052)           Unbilled accounts receivable in the Pictures segment         (63,196)         (44,842)           Unrealized gains on securities         (63,196)         (44,842)           Unrealized gains on securities         (23,949)         (23,949)           Intangible assets acquired through stock exchange offerings         (23,949)         (23,949)           Intangible assets derived from EMI Music Publishing acquisition ventures         (14,160)         (15,758)           Investment in M3         (35,802)         (37,007)           Other         (32,16	Future insurance policy benefits	33,812	36,683
Tax credit carryforwards         125,327         117,471           Reserve for doubtful accounts         8,534         9,136           Impairment of investments         14,146         12,278           Deferred revenue         14,478         19,081           Other         132,800         169,897           Gross deferred tax assets         1,133,088         1,130,757           Less: Valuation allowance         (899,835)         (723,114)           Total deferred tax assets         233,253         407,643           Deferred tax liabilities:         (166,717)         (169,244)           Future insurance policy benefits         (166,717)         (169,244)           Future insurance policy benefits         (167,058)         (181,052)           Unbilled accounts receivable in the Pictures segment         (63,196)         (44,842)           Unrealized gains on securities         (83,298)         (75,573)           Gain on equity securities         —         (33,082)           Intangible assets acquired through stock exchange offerings         (23,949)         (23,949)           Undistributed earnings of foreign subsidiaries and corporate joint ventures         (14,160)         (15,758)           Investment in M3         (35,802)         (37,007)           Other </td <td>Inventory</td> <td>15,792</td> <td>19,716</td>	Inventory	15,792	19,716
Reserve for doubtful accounts         8,534         9,136           Impairment of investments         14,146         12,278           Deferred revenue         14,478         19,081           Other         132,800         169,897           Gross deferred tax assets         1,133,088         1,130,757           Less: Valuation allowance         (899,835)         (723,114)           Total deferred tax assets         233,253         407,643           Deferred tax liabilities:           Insurance acquisition costs         (166,717)         (169,244)           Future insurance policy benefits         (167,058)         (181,052)           Unbilled accounts receivable in the Pictures segment         (63,196)         (44,842)           Unrealized gains on securities         (83,298)         (75,573)           Gain on equity securities         —         (33,082)           Intangible assets acquired through stock exchange offerings         (23,949)         (23,949)           Intangible assets derived from EMI Music Publishing acquisition         —         (93,979)           Undistributed earnings of foreign subsidiaries and corporate joint ventures         (14,160)         (15,758)           Investment in M3         (35,802)         (37,007)           Other         <	Depreciation	43,353	34,638
Impairment of investments         14,146         12,278           Deferred revenue         14,478         19,081           Other         132,800         169,897           Gross deferred tax assets         1,133,088         1,130,757           Less: Valuation allowance         (899,835)         (723,114)           Total deferred tax assets         233,253         407,643           Deferred tax liabilities:         (166,717)         (169,244)           Future insurance acquisition costs         (167,058)         (181,052)           Unbilled accounts receivable in the Pictures segment         (63,196)         (44,842)           Unrealized gains on securities         (83,298)         (75,573)           Gain on equity securities         —         (33,082)           Intangible assets acquired through stock exchange offerings         (23,949)         (23,949)           Intangible assets derived from EMI Music Publishing acquisition         —         (93,979)           Undistributed earnings of foreign subsidiaries and corporate joint ventures         (14,160)         (15,758)           Investment in M3         (35,802)         (37,007)           Other         (32,164)         (62,092)           Gross deferred tax liabilities         (586,344)         (736,578)		125,327	117,471
Deferred revenue Other         14,478 132,800 169,897           Gross deferred tax assets         1,133,088 1,130,757           Less: Valuation allowance         (899,835) (723,114)           Total deferred tax assets         233,253 407,643           Deferred tax liabilities:         (166,717) (169,244)           Future insurance acquisition costs         (167,058) (181,052)           Unbilled accounts receivable in the Pictures segment         (63,196) (44,842)           Unrealized gains on securities         (83,298) (75,573)           Gain on equity securities         — (33,082)           Intangible assets acquired through stock exchange offerings         (23,949) (23,949)           Intangible assets derived from EMI Music Publishing acquisition         — (93,979)           Undistributed earnings of foreign subsidiaries and corporate joint ventures         (14,160) (15,758)           Investment in M3         (35,802) (37,007)           Other         (32,164) (62,092)           Gross deferred tax liabilities         (586,344) (736,578)	Reserve for doubtful accounts	8,534	9,136
Other         132,800         169,897           Gross deferred tax assets         1,133,088         1,130,757           Less: Valuation allowance         (899,835)         (723,114)           Total deferred tax assets         233,253         407,643           Deferred tax liabilities:           Insurance acquisition costs         (166,717)         (169,244)           Future insurance policy benefits         (167,058)         (181,052)           Unbilled accounts receivable in the Pictures segment         (63,196)         (44,842)           Unrealized gains on securities         (83,298)         (75,573)           Gain on equity securities         —         (33,082)           Intangible assets acquired through stock exchange offerings         (23,949)         (23,949)           Intangible assets derived from EMI Music Publishing acquisition         —         (93,979)           Undistributed earnings of foreign subsidiaries and corporate joint ventures         (14,160)         (15,758)           Investment in M3         (35,802)         (37,007)           Other         (32,164)         (62,092)           Gross deferred tax liabilities         (586,344)         (736,578)	Impairment of investments		
Gross deferred tax assets         1,133,088         1,130,757           Less: Valuation allowance         (899,835)         (723,114)           Total deferred tax assets         233,253         407,643           Deferred tax liabilities:         (166,717)         (169,244)           Future insurance acquisition costs         (167,058)         (181,052)           Unbilled accounts receivable in the Pictures segment         (63,196)         (44,842)           Unrealized gains on securities         (83,298)         (75,573)           Gain on equity securities         —         (33,082)           Intangible assets acquired through stock exchange offerings         (23,949)         (23,949)           Intangible assets derived from EMI Music Publishing acquisition         —         (93,979)           Undistributed earnings of foreign subsidiaries and corporate joint ventures         (14,160)         (15,758)           Investment in M3         (35,802)         (37,007)           Other         (32,164)         (62,092)           Gross deferred tax liabilities         (586,344)         (736,578)	Deferred revenue		
Less: Valuation allowance       (899,835)       (723,114)         Total deferred tax assets       233,253       407,643         Deferred tax liabilities:       Insurance acquisition costs       (166,717)       (169,244)         Future insurance policy benefits       (167,058)       (181,052)         Unbilled accounts receivable in the Pictures segment       (63,196)       (44,842)         Unrealized gains on securities       (83,298)       (75,573)         Gain on equity securities       —       (33,082)         Intangible assets acquired through stock exchange offerings       (23,949)       (23,949)         Intangible assets derived from EMI Music Publishing acquisition       —       (93,979)         Undistributed earnings of foreign subsidiaries and corporate joint ventures       (14,160)       (15,758)         Investment in M3       (35,802)       (37,007)         Other       (32,164)       (62,092)         Gross deferred tax liabilities       (586,344)       (736,578)	Other	_132,800	169,897
Total deferred tax assets  Deferred tax liabilities:  Insurance acquisition costs Future insurance policy benefits Unbilled accounts receivable in the Pictures segment Unrealized gains on securities Gain on equity securities Intangible assets acquired through stock exchange offerings Intangible assets derived from EMI Music Publishing acquisition Undistributed earnings of foreign subsidiaries and corporate joint ventures Investment in M3 Other Gross deferred tax liabilities  233,253 407,64	Gross deferred tax assets	1,133,088	1,130,757
Deferred tax liabilities:  Insurance acquisition costs Future insurance policy benefits Unbilled accounts receivable in the Pictures segment Unrealized gains on securities Gain on equity securities Intangible assets acquired through stock exchange offerings Intangible assets derived from EMI Music Publishing acquisition Undistributed earnings of foreign subsidiaries and corporate joint ventures Investment in M3 Other Gross deferred tax liabilities  (166,717) (169,244) (181,052) (181,052) (44,842) (44,842) (736,578) (733,082) (733,082) (23,949) (23,949) (23,949) (14,160) (15,758) (14,160) (15,758) (35,802) (37,007) (32,164) (62,092) (62,092)	Less: Valuation allowance	(899,835)	(723,114)
Insurance acquisition costs Future insurance policy benefits Unbilled accounts receivable in the Pictures segment Unrealized gains on securities Gain on equity securities Intangible assets acquired through stock exchange offerings Intangible assets derived from EMI Music Publishing acquisition Undistributed earnings of foreign subsidiaries and corporate joint ventures Investment in M3 Other Gross deferred tax liabilities  (166,717) (169,244) (167,058) (181,052) (44,842) (43,949) (733,082) (733,082) (23,949) (23,949) (23,949) (14,160) (15,758) (14,160) (15,758) (35,802) (37,007) (62,092) (62,092)	Total deferred tax assets	233,253	407,643
Future insurance policy benefits Unbilled accounts receivable in the Pictures segment Unrealized gains on securities Gain on equity securities Intangible assets acquired through stock exchange offerings Intangible assets derived from EMI Music Publishing acquisition Undistributed earnings of foreign subsidiaries and corporate joint ventures Investment in M3 Other Gross deferred tax liabilities  (181,052) (44,842) (44,842) (75,573) (83,298) (75,573) (23,949) (23,949) (23,949) (14,160) (15,758) (14,160) (15,758) (35,802) (37,007) (62,092) (736,578)	Deferred tax liabilities:		
Unbilled accounts receivable in the Pictures segment Unrealized gains on securities (83,298) (75,573) Gain on equity securities Intangible assets acquired through stock exchange offerings Intangible assets derived from EMI Music Publishing acquisition Undistributed earnings of foreign subsidiaries and corporate joint ventures Investment in M3 Other Gross deferred tax liabilities (63,196) (44,842) (736,578) (736,578) (736,578)	Insurance acquisition costs	(166,717)	(169,244)
Unrealized gains on securities  Gain on equity securities  Intangible assets acquired through stock exchange offerings Intangible assets derived from EMI Music Publishing acquisition Undistributed earnings of foreign subsidiaries and corporate joint ventures  Investment in M3  Other  Gross deferred tax liabilities  (83,298)  (23,949)  (23,949)  (23,949)  (14,160)  (15,758)  (35,802)  (37,007)  (62,092)  (736,578)	Future insurance policy benefits	(167,058)	(181,052)
Gain on equity securities  Intangible assets acquired through stock exchange offerings Intangible assets derived from EMI Music Publishing acquisition Undistributed earnings of foreign subsidiaries and corporate joint ventures  Investment in M3 Other Gross deferred tax liabilities  - (33,082) (23,949) (23,949)  - (93,979)  (14,160) (15,758) (35,802) (37,007) (62,092) (62,092)	Unbilled accounts receivable in the Pictures segment	(63,196)	(44,842)
Intangible assets acquired through stock exchange offerings Intangible assets derived from EMI Music Publishing acquisition Undistributed earnings of foreign subsidiaries and corporate joint ventures Investment in M3 Other Gross deferred tax liabilities  (23,949) (23,949) (14,160) (15,758) (14,160) (15,758) (37,007) (32,164) (62,092) (586,344) (736,578)	Unrealized gains on securities	(83,298)	(75,573)
Intangible assets derived from EMI Music Publishing acquisition Undistributed earnings of foreign subsidiaries and corporate joint ventures (14,160) (15,758) Investment in M3 (35,802) (37,007) Other (32,164) (62,092) Gross deferred tax liabilities (586,344) (736,578)		_	
Undistributed earnings of foreign subsidiaries and corporate joint ventures       (14,160)       (15,758)         Investment in M3       (35,802)       (37,007)         Other       (32,164)       (62,092)         Gross deferred tax liabilities       (586,344)       (736,578)		(23,949)	
ventures       (14,160)       (15,758)         Investment in M3       (35,802)       (37,007)         Other       (32,164)       (62,092)         Gross deferred tax liabilities       (586,344)       (736,578)		_	(93,979)
Investment in M3       (35,802)       (37,007)         Other       (32,164)       (62,092)         Gross deferred tax liabilities       (586,344)       (736,578)	Undistributed earnings of foreign subsidiaries and corporate joint		
Other         (32,164)         (62,092)           Gross deferred tax liabilities         (586,344)         (736,578)	1		
Gross deferred tax liabilities (586,344) (736,578)			
	Other	(32,164)	(62,092)
Net deferred tax liabilities $ (353,091) (328,935) $	Gross deferred tax liabilities	(586,344)	(736,578)
	Net deferred tax liabilities	(353,091)	(328,935)

Based on the weight of the available positive and negative evidence, for the fiscal year ended March 31, 2019, Sony continued to maintain valuation allowances against the deferred tax assets at Sony Corporation and its national tax filing group in Japan, as well as at Sony Mobile Communications in Sweden, Sony Europe B.V. in the United Kingdom, certain subsidiaries in Brazil, and certain subsidiaries in other tax jurisdictions. Valuation allowances also continue to be recorded on the remaining U.S. deferred tax assets, primarily foreign tax credits, due to restrictions on the use of such assets and their relatively short remaining carryforward periods.

The net changes in the total valuation allowance were decreases of 3,894 million yen, 152,129 million yen and 176,721 million yen for the fiscal years ended March 31, 2017, 2018 and 2019, respectively.

The decrease in the valuation allowances during the fiscal year ended March 31, 2017 was primarily due to the use of net operating loss carryforwards for the national tax filing group in Japan.

The decrease in the valuation allowances during the fiscal year ended March 31, 2018 was primarily due to the use of net operating loss carryforwards and other deferred tax assets for both the national tax filing group in Japan and the consolidated tax filing group in the United States. The U.S. deferred tax assets were also reduced as a result of the reduction in the tax rate under the U.S. Tax Reform Act which had a corresponding reduction of the valuation allowance on those assets. In addition, valuation allowances were reversed in several jurisdictions, including France and Canada, as a result of sustained profitability.

The decrease in the valuation allowances during the fiscal year ended March 31, 2019 was due to the reversal of the valuation allowances on significant deferred tax assets in SAHI and its U.S. consolidated tax filing group and the use of net operating loss carryforwards and other deferred tax assets in the national tax filing group in Japan and other jurisdictions.

At March 31, 2019, 21,082 million yen of deferred income taxes have not been provided on undistributed earnings of certain foreign subsidiaries and corporate joint ventures not expected to be remitted in the foreseeable future totaling 1,317,603 million yen. In addition, deferred income taxes have not been provided on the gain on the book/tax basis difference in subsidiaries, including a gain of 61,544 million yen on a subsidiary's sale of stock arising from the issuance of common stock of Sony Music Entertainment (Japan) Inc. in a public offering to third parties in November 1991 and the remeasurement gain for the equity interest in EMI (Refer to Note 25). Sony does not anticipate any significant tax consequences on the possible future disposition of these investments based on its tax planning strategies.

At March 31, 2019, Sony had net operating loss carryforwards, the tax effect of which totaled 413,494 million yen, which may be available as an offset against future taxable income on tax returns to be filed in various tax jurisdictions. With the exception of 162,194 million yen with no expiration period, substantially all of the total net operating loss carryforwards expire at various dates between the fiscal years ending March 31, 2020 and 2024.

Tax credit carryforwards at March 31, 2019 amounted to 117,471 million yen. With the exception of 20,127 million yen with no expiration period, substantially all of the total available tax credit carryforwards expire at various dates between the fiscal years ending March 31, 2020 and 2029.

A reconciliation of the beginning and ending gross amounts of unrecognized tax benefits is as follows:

	Yen in millions		
	March 31		
	2017	2018	2019
Balance at beginning of the fiscal year	114,126	119,529	95,425
Reductions for tax positions of prior years	(558)	(8,809)	(31,396)
Additions for tax positions of prior years	13,353	4,681	3,094
Additions based on tax positions related to the current year	8,231	5,740	2,594
Settlements	(8,300)	(21,893)	(4,235)
Lapse in statute of limitations	(3,454)	(3,469)	(14,824)
Foreign currency translation adjustments	(3,869)	(354)	(81)
Balance at end of the fiscal year	119,529	95,425	50,577
Total net amount of unrecognized tax benefits that, if recognized,			
would affect the effective tax rate	45,987	39,308	35,004

The major changes in the total gross amount of unrecognized tax benefit balances relate to transfer pricing adjustments, including as a result of the Bilateral Advance Pricing Agreements ("APAs") and competent authority requests filed for certain subsidiaries in the G&NS, HE&S, IP&S, MC and Semiconductors segments and All Other, with respect to the intercompany cross-border transactions. The APAs include agreements between Sony and two taxing authorities under the authority of the mutual agreement procedure specified in income tax treaties. Sony reviews its estimated tax expense based on the progress made in these procedures, and the progress of transfer pricing audits generally, and makes adjustments to its estimates as necessary. In addition, the APAs are government to government negotiations, and therefore it is possible that the final outcomes of the agreements may differ from Sony's current assessment of the more-likely-than-not outcomes of such agreements.

During the fiscal year ended March 31, 2017, Sony recorded 474 million yen of interest expense and reversed 597 million yen of penalties. At March 31, 2017, Sony had recorded liabilities of 9,735 million yen and 3,761 million yen for the payments of interest and penalties, respectively.

During the fiscal year ended March 31, 2018, Sony recorded 1,053 million yen of interest expense and 876 million yen of penalties. At March 31, 2018, Sony had recorded liabilities of 10,788 million yen and 4,637 million yen for the payments of interest and penalties, respectively.

During the fiscal year ended March 31, 2019, Sony reversed 1,479 million yen of interest expense and recorded 218 million yen of penalties. At March 31, 2019, Sony had recorded liabilities of 9,309 million yen and 4,855 million yen for the payments of interest and penalties, respectively.

Sony operates in multiple jurisdictions throughout the world, and its tax returns are periodically audited by Japanese and foreign taxing authorities. As a result of audit settlements, the conclusion of current examinations,

the expiration of the statute of limitations in several jurisdictions and other reevaluations of Sony's tax positions, it is expected that the amount of unrecognized tax benefits will change in the next twelve months. Accordingly, Sony believes it is reasonably possible that its existing unrecognized tax benefits may be reduced by an amount up to 1,639 million yen within the next twelve months.

Sony remains subject to examinations by Japanese taxing authorities for tax years from 2009 through 2018, and by the U.S. tax authorities for tax years from 2015 through 2018 and other material foreign taxing authorities for tax years from 2006 through 2018.

# 23. Reconciliation of the differences between basic and diluted EPS

Reconciliation of the differences between basic and diluted EPS for the fiscal years ended March 31, 2017, 2018 and 2019 is as follows:

	Yen in millions		
	Fiscal year ended March 31		
	2017	2018	2019
Net income attributable to Sony Corporation's stockholders			
for basic and diluted EPS computation	<u>73,289</u>	490,794	916,271
	T	housands of shar	es
Weighted-average shares outstanding	1,262,023	1,263,895	1,266,592
Effect of dilutive securities:			
Stock acquisition rights	2,358	4,565	4,088
Zero coupon convertible bonds	23,962	23,960	23,966
Weighted-average shares for diluted EPS computation	1,288,343	1,292,420	1,294,646
		Yen	
Basic EPS	58.07	388.32	723.41
Diluted EPS	56.89	379.75	707.74

Potential shares of common stock which were excluded from the computation of diluted EPS for the fiscal years ended March 31, 2017, 2018 and 2019 were 6,856 thousand shares, 2,921 thousand shares and 5,731 thousand shares, respectively. Potential shares related to stock acquisition rights were excluded as anti-dilutive for the fiscal years ended March 31, 2017, 2018 and 2019 when the exercise price for those shares was in excess of the average market value of Sony's common stock for those fiscal years. The zero coupon convertible bonds issued in July 2015 were included in the diluted EPS calculation under the if-converted method beginning upon issuance.

# 24. Variable interest entities

Sony has, from time to time, entered into various arrangements with VIEs. These arrangements include several joint ventures in the recorded music business, an equity investment in the music publishing business, the financing of film production and the outsourcing of manufacturing operations. In addition, Sony has entered into several accounts receivable sales programs that involve VIEs, which are described in Note 6. For the VIEs that are described below, it has been determined that Sony is the primary beneficiary and, accordingly, these VIEs are consolidated by Sony.

Sony's U.S. subsidiary that is engaged in the recorded music business has entered into several joint ventures with companies involved in the production and creation of recorded music. Sony has reviewed these joint ventures and determined that they are VIEs. Based on a qualitative assessment, it was determined that Sony has the power to direct the activities that most significantly impact the VIEs' economic performance, as well as the obligation to absorb the losses of these VIEs as Sony is responsible for providing funding to these VIEs, and in most cases absorbs all losses until the VIEs become profitable. As a result, it has been determined that Sony is the primary beneficiary. The assets of Sony are not available to settle the obligations of these VIEs. As of March 31, 2019, the total assets and liabilities for these VIEs, on an aggregate basis, were 47,700 million yen and 27,861 million yen, respectively.

As described in Note 6, certain accounts receivable sales programs also involve VIEs. These VIEs are all special purpose entities associated with the sponsor banks. Based on a qualitative assessment, Sony is not the primary beneficiary and therefore does not consolidate these entities as Sony does not have the power to direct the activities, an obligation to absorb losses, or the right to receive the residual returns of these VIEs. Sony's maximum exposure to losses from these VIEs is considered insignificant.

# 25. Acquisitions

### (1) TEN Sports Network acquisition

On February 28, 2017, Sony Pictures Networks India, a wholly-owned subsidiary of Sony, completed the first phase of a two-phase acquisition of the TEN Sports Network in a majority of the countries and territories where TEN Sports Network operates, including India, for total consideration of 39,106 million yen (346 million U.S. dollars), of which 37,298 million yen (330 million U.S. dollars) was paid during the fiscal year ended March 31, 2017 and the remaining 1,772 million yen (16 million U.S. dollars) was paid during the fiscal year ended March 31, 2018. On September 15, 2017, Sony Pictures Networks India completed the final phase of the acquisition for cash consideration of 2,316 million yen (21 million U.S. dollars).

As a result of the acquisition, Sony recorded 26,489 million yen (235 million U.S. dollars) of goodwill and 14,910 million yen (132 million U.S. dollars) of intangible assets. The cash consideration paid in this transaction, net of cash received, is included within Other in the investing activities section of the consolidated statements of cash flows.

Pro forma results of operations have not been presented because the effect of the acquisition was not material.

# (2) EMI Music Publishing acquisition

On November 14, 2018, Sony Corporation of America, Sony's wholly-owned subsidiary, completed the acquisition of the entirety of the approximately 60% equity interest held by the investor consortium led by the Mubadala Investment Company in DH Publishing, L.P. ("EMI"), which owned and managed EMI Music Publishing, for the equity purchase price of 257,168 million yen (2,269 million U.S. dollars), which includes payments related to warrants and management equity plans. Sony paid all the consideration in cash upon the acquisition. As a result of this acquisition, EMI has become a wholly-owned subsidiary of Sony. This acquisition allows Sony to build upon its music publishing library by providing the Company with full ownership of the EMI Music Publishing catalog which was being administered by Sony's wholly-owned music publishing subsidiary, Sony/ATV Music Publishing. Sony's consolidated income statements for the fiscal year ended March 31, 2019 include revenue and operating income of 28,871 million yen (260 million U.S. dollars) and 6,432 million yen (58 million U.S. dollars), respectively, attributable to EMI since the date of acquisition. Sony's consolidated income statements for the three months ended March 31, 2019 include revenue and operating income of 18,420 million yen (167 million U.S. dollars) and 4,522 million yen (41 million U.S. dollars), respectively, attributable to EMI.

Prior to the acquisition, Sony's interest in EMI was accounted for under the equity method of accounting. As a result of Sony obtaining a controlling interest in EMI, Sony consolidated EMI using the acquisition method of accounting and recorded the fair value of the identifiable assets, liabilities assumed and residual goodwill of EMI. Sony remeasured the approximately 40% equity interest in EMI that Sony already owned prior to the acquisition at a fair value of 141,141 million yen (1,245 million U.S. dollars) which resulted in the recognition of a non-cash gain of 116,939 million yen (1,032 million U.S. dollars) recorded in other operating income, net for the three months ended December 31, 2018. Sony did not record any tax expense or deferred tax liability corresponding to this gain. Sony also assumed EMI's existing interest-bearing debt of 148,621 million yen (1,311 million U.S. dollars) as a result of this acquisition, of which 108,942 million yen (961 million U.S. dollars) was repaid immediately from Sony's existing cash.

The following table summarizes the fair values assigned to the assets and liabilities of EMI that were recorded in the Music segment. The purchase price allocation as of the date of the acquisition is preliminary and is subject to revision as more detailed analyses are completed. The primary areas of the purchase price allocation that are not yet finalized are related to income taxes and the residual goodwill.

	Yen in millions
Cash and cash equivalents	12,971
Notes and accounts receivable, trade and contract assets	32,287
Prepaid expenses and other current assets	10,220
Securities investments and other	1,476
Intangibles, net	420,534
Goodwill	237,271
Other	10,023
Total assets	724,782
Notes and accounts payable, trade	1,731
Accounts payable, other and accrued expenses	70,675
Accrued income and other taxes	3,082
Long-term debt	148,621
Accrued pension and severance costs	1,947
Deferred income taxes	94,849
Other	5,564
Total liabilities	326,469

Intangibles mainly consists of music publishing catalogs with weighted average amortization periods of 43 years. Goodwill represents unidentifiable intangible assets, such as future growth from new revenue streams and synergies with existing Sony assets and businesses, and is calculated as the excess of the purchase price over the estimated fair value of the tangible and intangible assets acquired and is not deductible for tax purposes. The goodwill recorded in connection with this acquisition is included in the Music segment.

The following unaudited supplemental pro forma financial information presents the combined results of operations of Sony and EMI as though the acquisition had occurred as of the beginning of the fiscal year ended March 31, 2018:

	Yen in millions, Yen per share amounts	
	Fiscal year en	ded March 31
	2018	2019
Net sales	8,612,280	8,738,209
Operating income	854,786	801,973
Net income attributable to Sony Corporation's stockholders Per share data:	584,019	817,629
— Basic EPS	462.08	645.53
— Diluted EPS	451.88	631.55

The unaudited supplemental pro forma financial information is based on estimates and assumptions, which Sony believes are reasonable, and is not intended to represent or be indicative of what Sony's consolidated net income attributable to Sony Corporation's stockholders would have been had the acquisition been completed at the beginning of the fiscal year ended March 31, 2018 and should not be taken as indicative of Sony's future consolidated net income attributable to Sony Corporation's stockholders. The unaudited supplemental pro forma financial information includes the elimination of equity in net income and consolidation of EMI, the adjustment of the gain from the remeasurement of the previously owned equity interest, incremental intangible asset amortization, net of the related tax effects and the adjustments of expenses incurred in relation to warrants and management equity plans.

#### (3) Other acquisitions

During the fiscal year ended March 31, 2017, Sony completed other acquisitions for total consideration of 12,409 million yen which were paid for primarily in cash and there was no material contingent consideration subject to future change. As a result of these acquisitions, Sony recorded 12,384 million yen of goodwill and 7,073 million yen of intangible assets.

During the fiscal year ended March 31, 2018, Sony completed other acquisitions for total consideration of 27,459 million yen which were paid for primarily in cash and there was no material contingent consideration subject to future change. As a result of these acquisitions, Sony recorded 20,013 million yen of goodwill and 4,980 million yen of intangible assets.

During the fiscal year ended March 31, 2019, Sony completed other acquisitions for total consideration of 7,743 million yen which were paid for primarily in cash and there was no material contingent consideration subject to future change. As a result of these acquisitions, Sony recorded 5,773 million yen of goodwill and 4,422 million yen of intangible assets.

No significant amounts have been allocated to in-process research and development and all of the entities described above have been consolidated into Sony's results of operations since their respective acquisition dates. Pro forma results of operations have not been presented because the effects of other acquisitions, individually and in aggregate, were not material.

#### 26. Divestitures

#### (1) Battery business

On October 31, 2016, Sony and Murata Manufacturing Co., Ltd. signed a binding definitive agreement to transfer the Sony Group's battery business to the Murata Group which was completed on September 1, 2017. Sony classified certain assets and liabilities related to the battery business as held for sale and, as a result of the fair value valuation of these assets and liabilities, recorded impairment losses of 42,298 million yen in other operating (income) expense, net in the consolidated statements of income for the fiscal year ended March 31, 2017.

# (2) Sale of equity interest in Sony Electronics Huanan Co., Ltd.

On April 1, 2017, Sony transferred all of the equity interest in Sony Electronics Huanan Co., Ltd. ("SEH"), a wholly-owned subsidiary in the Semiconductors segment that manufactures camera modules, to Shen Zhen O-Film Tech Co., Ltd. The consideration for the transfer is approximately 234 million U.S. dollars, including the assumption of SEH's debt and the sales price of approximately 95 million U.S. dollars. As the result of the transfer, Sony recognized a gain on transfer totaling 28,262 million yen in other operating (income) expense, net in the consolidated statement of income for the fiscal year ended March 31, 2018.

# 27. Collaborative arrangements

Sony's collaborative arrangements primarily relate to arrangements entered into, through subsidiaries in the Pictures segment, with one or more active participants to jointly finance, produce and/or distribute motion pictures or television programming under which both the subsidiaries and the other active participants share in the risks and rewards of ownership. These arrangements are referred to as co-production and distribution arrangements.

Sony typically records an asset for only the portion of the motion pictures or television programming it owns and finances. Sony and the other participants typically distribute the product in different media or markets. Revenues earned and expenses incurred for the media or markets in which Sony distributes the product are typically recorded on a gross basis. Sony typically does not record revenues earned and expenses incurred when the other participants distribute the product. Sony and the other participants typically share in the profits from the distribution of the product in all media or markets. For motion pictures, if Sony is a net receiver of (1) Sony's share of the profits from the media or markets distributed by the other participants less (2) the other participants' share of the profits from the media or markets distributed by Sony then the net amount is recorded as net sales. If Sony is a net payer then the net amount is recorded in cost of sales. For television programming, Sony records its share of the profits from the media or markets distributed by the other participants as sales, and the other participants' share of the profits from the media or markets distributed by Sony as cost of sales.

For the fiscal years ended March 31, 2017, 2018 and 2019, 44,124 million yen, 49,547 million yen and 42,343 million yen, respectively, were recorded as net sales for amounts due from the other participants and 29,594 million yen, 24,280 million yen and 22,702 million yen, respectively, were recorded as cost of sales for amounts owed to the other participants in these collaborative arrangements.

# 28. Commitments, contingent liabilities and other

## (1) Loan commitments

Subsidiaries in the Financial Services segment have entered into loan agreements with their customers in accordance with the condition of the contracts. As of March 31, 2019, the total unused portion of the lines of credit extended under these contracts was 27,553 million yen. Based upon the information currently available, it is not possible to estimate the aggregate amounts of future year-by-year payments for these loan commitments.

#### (2) Purchase commitments and other

Purchase commitments and other outstanding as of March 31, 2019 amounted to 593,338 million yen. The major components of these commitments are as follows:

Certain subsidiaries in the Pictures segment have entered into agreements with creative talent for the development and production of motion pictures and television programming as well as agreements with third parties to acquire completed motion pictures, or certain rights therein, and to acquire the rights to broadcast certain live action sporting events. These agreements cover various periods mainly within three years. As of March 31, 2019, these subsidiaries were committed to make payments under such contracts of 94,871 million yen.

Certain subsidiaries in the Music segment have entered into contracts with recording artists, songwriters and companies for the future production, distribution and/or licensing of music product. These contracts cover various periods mainly within six years. As of March 31, 2019, these subsidiaries were committed to make payments of 112,578 million yen under such contracts.

A subsidiary in the G&NS segment has entered into contracts for programming content. These contracts cover various periods mainly within a year. As of March 31, 2019, this subsidiary was committed to make payments of 11,027 million yen under such contracts.

Sony has entered into purchase contracts for fixed assets. As of March 31, 2019, Sony has committed to make payments of 164,174 million yen under such contracts.

Sony has entered into purchase contracts for materials. As of March 31, 2019, Sony has committed to make payments of 125,164 million yen under such contracts.

Sony has entered into sponsorship contracts related to advertising and promotional rights. These contracts cover various periods mainly within two years. As of March 31, 2019, Sony has committed to make payments of 10,132 million yen under such contracts.

The schedule of the aggregate amounts of year-by-year payment of purchase commitments during the next five fiscal years and thereafter is as follows:

Fiscal year ending March 31	Yen in millions
2020	344,417
2021	82,600
2022	55,492
2023	40,349
2024	26,387
Later fiscal years	44,093
Total	593,338

### (3) Litigation

Beginning in 2009, the U.S. Department of Justice ("DOJ"), the European Commission and certain other governmental agencies outside the United States have conducted investigations relating to competition in the

optical disk drives market. Sony Corporation and/or certain of its subsidiaries have been subject to these investigations. Sony understands that these investigations have ended. However, proceedings initiated by the European Commission as a result of its investigation continue. In October 2015, the European Commission adopted a decision in which it fined Sony Corporation and certain of its subsidiaries 31 million euros; however, Sony filed an appeal against the decision with the European Union's General Court. In addition, a number of direct and indirect purchaser lawsuits, including class actions, have been filed in certain jurisdictions in which the plaintiffs allege that Sony Corporation and certain of its subsidiaries violated antitrust laws and seek recovery of damages and other remedies. Most of these lawsuits have been settled, including the class actions brought by the direct and indirect purchasers in the United States; however, certain lawsuits continue. Based on the stage of the pending proceedings, it is not possible to estimate the amount of losses or range of possible losses, if any, that might ultimately result from adverse judgments, settlements or other resolution of all of these matters.

Since 2011, in relation to the secondary batteries business that was operated by Sony and certain of its subsidiaries, a number of direct and indirect purchaser lawsuits, including class actions, have been filed in certain jurisdictions in which the plaintiffs allege that Sony Corporation and certain of its subsidiaries violated antitrust laws and seek recovery of damages and other remedies. Most of these lawsuits have been settled, including the class actions brought by the direct and indirect purchasers in the United States; however, certain lawsuits are still pending. Based on the stage of the pending proceedings, it is not possible to estimate the amount of losses or range of possible losses, if any, that might ultimately result from adverse judgments, settlements or other resolution of all of these matters.

In addition, Sony Corporation and certain of its subsidiaries are defendants or otherwise involved in other pending legal and regulatory proceedings. However, based upon the information currently available, Sony believes that the outcome from such legal and regulatory proceedings would not have a material impact on Sony's results of operations and financial position.

#### (4) Guarantees

Sony has issued guarantees that contingently require payments to guaranteed parties if certain specified events or conditions occur. The maximum potential amount of future payments under these guarantees as of March 31, 2019 amounted to 2,531 million yen.

In addition to the above, Sony also issues contractual product warranties under which it generally guarantees the performance of products delivered and services rendered for a certain period or term. The changes in the product warranty liability for the fiscal years ended March 31, 2017, 2018 and 2019 are as follows:

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	1 cm m minions		
	Fiscal year ended March 31		
	2017	2018	2019
Balance at beginning of the fiscal year	64,450	57,694	44,717
Additional liabilities for warranties	51,465	32,179	23,041
Settlements (in cash or in kind)	(47,922)	(30,570)	(26,326)
Changes in estimate for pre-existing warranty reserve	(8,120)	(16,802)	(7,370)
Translation adjustments	(2,179)	2,216	(1,057)
Balance at end of the fiscal year	57,694	44,717	33,005

The consideration received for extended warranty service, which is not a significant portion of the warranty activities provided by Sony, is excluded from the amounts in the table above.

# 29. Business segment information

The reportable segments presented below are the segments of Sony for which separate financial information is available and for which operating profit or loss amounts are evaluated regularly by the chief operating decision maker ("CODM") in deciding how to allocate resources and in assessing performance. The CODM does not evaluate segments using discrete asset information. Sony's CODM is its Chief Executive Officer and President.

The G&NS segment includes network services businesses, the manufacture and sales of home gaming products and production and sales of software. The Music segment includes Recorded Music, Music Publishing

and Visual Media and Platform businesses. The Pictures segment includes Motion Pictures, Television Productions and Media Networks businesses. The HE&S segment includes Televisions as well as Audio and Video businesses. The IP&S segment includes the Still and Video Cameras business. The MC segment includes the manufacture and sales of mobile phones and an internet-related service business. The Semiconductors segment includes the image sensors business. The Financial Services segment primarily represents individual life insurance and non-life insurance businesses in the Japanese market and the banking business in Japan. All Other consists of various operating activities, including the overseas disc manufacturing and recording media businesses. Sony's products and services are generally unique to a single operating segment.

Segment sales and operating revenue:

		Yen in millions		
	Fiscal	Fiscal year ended Ma		
	2017	2018	2019	
Sales and operating revenue:				
Game & Network Services —				
Customers	1,581,568	1,848,298	2,224,622	
Intersegment	68,231	95,514	86,250	
Total	1,649,799	1,943,812	2,310,872	
Music —				
Customers	630,767	784,792	795,025	
Intersegment	16,891	15,203	12,464	
Total	647,658	799,995	807,489	
Pictures —				
Customers	901,230	1,010,173	985,270	
Intersegment	1,899	894	1,603	
Total	903,129	1,011,067	986,873	
Home Entertainment & Sound —	,		ŕ	
Customers	1,034,215	1,221,734	1,154,533	
Intersegment	4,789	999	878	
Total	1,039,004	1,222,733	1,155,411	
Imaging Products & Solutions —	-,,	-,,	-,,	
Customers	571,499	647,163	661,304	
Intersegment	8,134	8,729	9,146	
Total	579,633	655,892	670,450	
Mobile Communications —	2,7,000	000,00	,	
Customers	752,688	713,916	487,330	
Intersegment	6,457	9,826	10,670	
Total	759,145	723,742	498,000	
Semiconductors—	733,113	723,712	1,70,000	
Customers	659,779	726,892	770,622	
Intersegment	113,344	123,118	108,708	
Total	773,123	850,010	879,330	
Financial Services —	773,123	050,010	077,550	
Customers	1,080,284	1,221,235	1,274,708	
Intersegment	7,220	7,142	7,831	
Total	1,087,504	1,228,377	1,282,539	
All Other —	1,087,504	1,220,377	1,202,339	
Customers	375,116	351,527	299,806	
Intersegment	75,334	55,647	45,931	
Total	450,450	407,174	345,737	
Corporate and elimination	(286,195)	(298,820)	(271,014)	
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Consolidated total	7,603,250	8,543,982	8,665,687	

G&NS intersegment amounts primarily consist of transactions with All Other. Semiconductors intersegment amounts primarily consist of transactions with the G&NS segment, the IP&S segment and the MC segment. All

Other intersegment amounts primarily consist of transactions with the G&NS segment, the Music segment and the Pictures segment. Corporate and elimination includes certain brand and patent royalty income.

# Segment profit or loss:

	<b>Y</b>	Yen in millions Fiscal year ended March 31		
	Fiscal y			
	2017	2018	2019	
Operating income (loss):				
Game & Network Services	135,553	177,478	311,092	
Music	75,798	127,786	232,487	
Pictures	(80,521)	41,110	54,599	
Home Entertainment & Sound	58,504	85,841	89,669	
Imaging Products & Solutions	47,257	74,924	83,975	
Mobile Communications	10,164	(27,636)	(97,136)	
Semiconductors	(7,811)	164,023	143,874	
Financial Services	166,424	178,947	161,477	
All Other	(29,585)	(23,530)	(11,127)	
Total	375,783	798,943	968,910	
Corporate and elimination	(87,081)	(64,083)	(74,675)	
Consolidated operating income	288,702	734,860	894,235	
Other income	14,418	23,728	144,735	
Other expenses	(51,501)	(59,539)	(27,322)	
Consolidated income before income taxes	251,619	699,049	1,011,648	

Operating income (loss) is sales and operating revenue less costs and expenses, and includes equity in net income (loss) of affiliated companies.

Corporate and elimination includes headquarters restructuring costs and certain other corporate expenses, including the amortization of certain intellectual property assets such as the cross-licensing of intangible assets acquired from Ericsson at the time of the Sony Mobile Communications acquisition, which are not allocated to segments.

Pursuant to a separation of Sony's businesses into distinct subsidiaries and a realignment of corporate functions, changes have been made to the method of calculating the amount of pension and severance-related expenses allocated to Sony's headquarters and each business segment from the fiscal year ended March 31, 2018. As a result of these changes, an increase in corporate costs totaling 7.5 billion yen is included in Corporate and elimination for the fiscal year ended March 31, 2018. Conversely, a decrease in expenses totaling the same amount is included in each business segment, mainly in the Semiconductors (3.2 billion yen) and IP&S (2.0 billion yen) segments. These changes have no impact on consolidated operating income.

# Other significant items:

	1	Yen in millions	
	Fiscal y	Fiscal year ended March 31	
	2017	2018	2019
Equity in net income (loss) of affiliated companies:			
Game & Network Services	_	_	_
Music	5,435	4,483	(6,915)
Pictures	(35)	(129)	106
Home Entertainment & Sound	_	_	_
Imaging Products & Solutions	_	_	_
Mobile Communications	(79)	(102)	(38)
Semiconductors		_	_
Financial Services	(3,601)	(61)	(682)
All Other	1,843	4,378	4,530
Consolidated total	3,563	8,569	(2,999)
Depreciation and amortization:			
Game & Network Services	25,486	29,091	29,023
Music	16,124	18,230	21,259
Pictures	20,487	24,458	24,081
Home Entertainment & Sound	19,830	21,136	21,887
Imaging Products & Solutions	25,442	23,928	24,867
Mobile Communications	19,794	19,215	14,995
Semiconductors	102,328	99,258	110,746
Financial Services, including deferred insurance acquisition costs	47,056	79,843	91,179
All Other	7,407	5,910	4,940
Total	283,954	321,069	342,977
Corporate	43,094	40,375	31,049
Consolidated total	327,048	361,444	374,026

The following table includes a breakdown of sales and operating revenue to external customers by product category for certain segments. Sony management views each segment as a single operating segment.

	Yen in millions			
	Fisca	Fiscal year ended March 31		
	2017	2018	2019	
Sales and operating revenue:				
Game & Network Services				
Digital Software and Add-on Content	525,683	762,220	1,102,231	
Network Services	189,241	270,972	326,524	
Hardware and Others	866,644	815,106	795,867	
Total	1,581,568	1,848,298	2,224,622	
Music				
Recorded Music	388,948	446,960	426,926	
Music Publishing	66,541	74,360	106,666	
Visual Media and Platform	175,278	263,472	261,433	
Total	630,767	784,792	795,025	
Pictures				
Motion Pictures	409,363	448,945	436,017	
Television Productions	271,886	289,024	288,816	
Media Networks	219,981	272,204	260,437	
Total	901,230	1,010,173	985,270	
Home Entertainment & Sound				
Televisions	720,557	861,763	788,423	
Audio and Video	311,771	357,194	362,580	
Other	1,887	2,777	3,530	
Total	1,034,215	1,221,734	1,154,533	
Imaging Products & Solutions				
Still and Video Cameras	351,834	415,318	421,506	
Other	219,665	231,845	239,798	
Total	571,499	647,163	661,304	
Mobile Communications	752,688	713,916	487,330	
Semiconductors	659,779	726,892	770,622	
Financial Services	1,080,284	1,221,235	1,274,708	
All Other	375,116	351,527	299,806	
Corporate	16,104	18,252	12,467	
Consolidated total	7,603,250	8,543,982	8,665,687	

Sony has realigned its product category configuration in the G&NS segment for the fiscal year ended March 31, 2019. In connection with the realignment, all prior period sales amounts by product category in the table above have been reclassified to conform to the current presentation.

In the G&NS segment, Digital Software and Add-on Content includes distribution of software titles and add-on contents through network by Sony Interactive Entertainment; Network Services includes network services relating to game, video and music content; Hardware and Others includes home and portable game consoles, packaged software and peripheral devices. In the Music segment, Recorded Music includes the distribution of physical and digital recorded music and revenue derived from artists' live performances; Music Publishing includes the management and licensing of the words and music of songs; Visual Media and Platform includes the production and distribution of animation titles, including game applications based on the animation titles, and various service offerings for music and visual products. In the Pictures segment, Motion Pictures includes the worldwide production, acquisition and distribution of motion pictures and direct-to-video content; Television Productions includes the production, acquisition and distribution of television programming; Media Networks includes the operation of television and digital networks worldwide. In the HE&S segment, Televisions includes LCD and OLED televisions; Audio and Video includes Blu-ray disc players and recorders, home audio,

headphones and memory-based portable audio devices. In the IP&S segment, Still and Video Cameras includes interchangeable lens cameras, compact digital cameras, consumer video cameras and video cameras for broadcast; Other includes display products such as projectors and medical equipment.

### Geographic Information:

Sales and operating revenue attributed to countries and areas based on location of external customers for the fiscal years ended March 31, 2017, 2018 and 2019 and property, plant and equipment, net as of March 31, 2018 and 2019 are as follows:

		Yen in millions		
	Fisca	Fiscal year ended March 31		
	2017	2018	2019	
Sales and operating revenue:				
Japan	2,392,790	2,625,619	2,591,784	
United States	1,673,768	1,835,705	1,982,135	
Europe	1,634,683	1,841,457	1,862,166	
China	557,995	674,718	770,416	
Asia-Pacific	866,712	1,024,179	912,193	
Other Areas	477,302	542,304	546,993	
Total	7,603,250	8,543,982	8,665,687	
		Yen in	millions	
		Mar	ch 31	
		2018	2019	
Property, plant and equipment, net:				
Japan		563,593	590,694	
United States		97,979	113,581	
Europe		23,302	22,622	
China		11,232	11,694	
Asia-Pacific		36,738	34,273	
Other Areas		6,626	4,189	
Total		739,470	777,053	

Major countries and areas in each geographic segment excluding Japan, United States and China are as follows:

(1) Europe: United Kingdom, France, Germany, Russia, Spain and Sweden

(2) Asia-Pacific: India, South Korea, Oceania, Thailand and Malaysia (3) Other Areas: The Middle East/Africa, Brazil, Mexico and Canada

There are no individually material countries with respect to sales and operating revenue or property, plant and equipment, net included in Europe, Asia-Pacific and Other Areas.

Transfers between reportable business segments or geographic areas are made at individually negotiated prices that are intended to reflect a market-based transfer price.

There were no sales and operating revenue with any single major external customer for the fiscal years ended March 31, 2017, 2018 and 2019.

# 30. Subsequent events

## (1) Setting of parameters for repurchase of shares of its own common stock

Sony Corporation approved the setting of the following parameters for repurchase of its own common stock pursuant to the Companies Act at the meeting of its Board of Directors held on May 16, 2019:

- (i) Total number of shares for repurchase: 60 million shares (maximum)
- (ii) Total purchase price for repurchase of shares: 200 billion yen (maximum)
- (iii) Period of repurchase: May 17, 2019 to March 31, 2020

## (2) Acquisition of equity interests in joint ventures in the life insurance business

On May 17, 2019, Sony Life Insurance Co., Ltd. ("Sony Life"), Sony's consolidated subsidiary, entered into a legally binding memorandum of understanding with AEGON International B.V. ("AEGON") regarding the sale of the 50% equity interests held by AEGON in AEGON Sony Life Insurance Co. Ltd. and SA Reinsurance Ltd. (collectively, the "JVs") to Sony Life. The purchase price for the sale is 16 billion yen, subject to certain closing adjustments being made, if applicable. The closing of the transaction is subject to certain closing conditions, including regulatory approvals. As of the closing of the transaction, Sony Life will own 100% of the equity interests in the JVs and the JVs will become consolidated subsidiaries of Sony.