

Annual Securities Report

(34th Business Term)

From April 1, 2018 to March 31, 2019

NIPPON TELEGRAPH AND TELEPHONE CORPORATION

This document is an English translation of a report that has been generated/printed with a Table of Contents and page numbers attached to data from the Securities Report filed with the Financial Services Agency using EDINET (Electronic Disclosure for Investors' NETwork).

Included at the end of this report are English translations of the Report of Independent Registered Public Accounting Firm attached to the Securities Report filed in the manner described above and the Report on Internal Control and Confirmation Letter filed in conjunction with the above mentioned Securities Report.

The forward-looking statements and projected figures concerning the future performance of NTT and its subsidiaries and affiliates contained or referred to herein are based on a series of assumptions, projections, estimates, judgments and beliefs of the management of NTT in light of information currently available to it regarding NTT and its subsidiaries and affiliates, the economy and telecommunications industry in Japan and overseas, and other factors. These projections and estimates may be affected by the future business operations of NTT and its subsidiaries and affiliates, the state of the economy in Japan and abroad, possible fluctuations in the securities markets, the pricing of services, the effects of competition, the performance of new products, services and new businesses, changes to laws and regulations affecting the telecommunications industry in Japan and elsewhere, other changes in circumstances that could cause actual results to differ materially from the forecasts contained or referred to herein, as well as other risks included herein and in any other materials publicly disclosed by NTT on its website.

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[Cover]

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PART I. INFORMATION ON THE COMPANY

PART I. INFORMATION ON THE COMPANY

ITEM 1. OVERVIEW OF THE COMPANY

1. Selected Financial Data

(1) Selected Consolidated Financial and Other Data of the Company

		IFRS		
		Date of Transition to IFRS	33 rd Business Term	34 th Business Term
		April 1, 2017	Year Ended March 31, 2018	Year Ended March 31, 2019
Operating revenues	Millions of yen	–	11,782,148	11,879,842
Profit before taxes	Millions of yen	–	1,740,479	1,671,861
Profit attributable to NTT	Millions of yen	–	897,887	854,561
Comprehensive income (loss) attributable to NTT	Millions of yen	–	950,302	826,154
NTT shareholders' equity	Millions of yen	8,620,997	9,050,358	9,264,913
Total assets	Millions of yen	21,223,727	21,541,444	22,295,146
NTT shareholders' equity per share	Yen	4,277.63	4,591.58	4,832.03
Basic earnings per share attributable to NTT	Yen	–	449.86	440.25
Diluted earnings per share attributable to NTT	Yen	–	–	–
Equity ratio (ratio of NTT shareholders' equity to Total assets)	%	40.6	42.0	41.6
ROE (ratio of profit attributable to NTT)	%	–	10.2	9.3
Price earnings ratio	Multiple	–	10.9	10.7
Cash flows from operating activities	Millions of yen	–	2,541,270	2,406,157
Cash flows from investing activities	Millions of yen	–	(1,746,185)	(1,774,136)
Cash flows from financing activities	Millions of yen	–	(968,279)	(584,266)
Cash and cash equivalents at end of year	Millions of yen	1,075,773	895,003	946,134
Number of employees [Average number of temporary employees]	Number of people	274,844 [90,746]	282,533 [80,481]	303,351 [62,805]

Notes: 1. Operating revenues do not include consumption taxes.

2. NTT shareholders' equity does not include the portion attributable to non-controlling interests.

3. Diluted earnings per share attributable to NTT is not stated because NTT did not have potentially dilutive common shares that were outstanding during the period.

4. NTT shareholders' equity per share is calculated based on the number of shares outstanding at the end of the fiscal year, excluding treasury stock, and Basic earnings per share attributable to NTT is calculated based on the average number of shares outstanding during the fiscal year, excluding treasury stock.

5. Number of employees indicates the number of full-time employees as of March 31 of each of the years indicated. The average annual number of temporary employees for the fiscal years indicated is shown in brackets.

6. NTT's consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") beginning with the 34th business term.

		U.S GAAP			
		30 th Business Term	31 st Business Term	32 nd Business Term	33 rd Business Term
		Year Ended March 31, 2015	Year Ended March 31, 2016	Year Ended March 31, 2017	Year Ended March 31, 2018
Operating revenues	Millions of yen	11,095,317	11,540,997	11,391,016	11,799,587
Income before income taxes and equity in earnings (losses) of affiliated companies	Millions of yen	1,066,629	1,329,259	1,527,769	1,755,624
Net income attributable to NTT	Millions of yen	518,066	737,738	800,129	909,695
Comprehensive income (loss) attributable to NTT	Millions of yen	691,332	422,153	860,200	956,013
NTT shareholders' equity	Millions of yen	8,681,860	8,833,806	9,052,479	9,485,981
Total assets	Millions of yen	20,702,427	21,035,931	21,250,325	21,675,770
NTT shareholders' equity per share	Yen	4,100.63	4,214.32	4,491.73	4,812.59
Basic earnings per share attributable to NTT	Yen	236.85	350.34	390.94	455.78
Diluted earnings per share attributable to NTT	Yen	-	-	-	-
Equity ratio (ratio of NTT shareholders' equity to Total assets)	%	41.9	42.0	42.6	43.8
Return on equity ratio (ratio of Net income attributable to NTT to NTT shareholders' equity)	%	6.0	8.4	8.9	9.8
Price earnings ratio	Multiple	15.6	13.8	12.2	10.8
Net cash provided by operating activities	Millions of yen	2,391,812	2,711,845	2,917,357	2,637,547
Net cash used in investing activities	Millions of yen	(1,868,579)	(1,759,778)	(2,089,311)	(1,841,777)
Net cash used in financing activities	Millions of yen	(678,008)	(707,575)	(981,511)	(931,658)
Cash and cash equivalents at year end	Millions of yen	849,174	1,088,275	925,213	780,300
Number of employees [Average number of temporary employees]	Number of people	241,593 [101,648]	241,448 [99,855]	274,844 [90,746]	282,533 [80,481]

Notes: 1. Operating revenues do not include consumption taxes.

2. NTT shareholders' equity does not include the portion attributable to non-controlling interests.

3. Diluted earnings per share attributable to NTT is not stated because NTT did not have potentially dilutive common shares that were outstanding during the period.

4. NTT shareholders' equity per share is calculated based on the number of shares outstanding at the end of the fiscal year, excluding treasury stock, and Basic earnings per share attributable to NTT is calculated based on the average number of shares outstanding during the fiscal year, excluding treasury stock.

5. NTT conducted a two-for-one stock split of its common stock with an effective date of July 1, 2015. The figures for NTT shareholders' equity per share and Basic earnings per share attributable to NTT for each fiscal year have been adjusted to reflect the impact of the stock split as if the stock split had occurred prior to the periods reported above.

6. Number of employees indicates the number of full-time employees as of March 31 of each of the years indicated. The average annual number of temporary employees for the fiscal years indicated is shown in brackets.

(2) Selected Non-Consolidated Financial and Other Data of the Company

		30th Business Term	31st Business Term	32nd Business Term	33rd Business Term	34th Business Term
		Year Ended March 31, 2015	Year Ended March 31, 2016	Year Ended March 31, 2017	Year Ended March 31, 2018	Year Ended March 31, 2019
Operating revenues	Millions of yen	411,828	521,742	474,380	663,118	750,740
Recurring profit	Millions of yen	272,393	381,487	334,901	528,552	612,862
Net income	Millions of yen	556,578	666,679	288,117	725,192	1,192,784
Common stock	Millions of yen	937,950	937,950	937,950	937,950	937,950
Shares outstanding at end of year	Shares	1,136,697,235	2,096,394,470	2,096,394,470	2,096,394,470	1,950,394,470
Net assets	Millions of yen	4,345,475	4,717,924	4,383,510	4,600,635	5,222,248
Total assets	Millions of yen	7,027,374	7,052,062	6,681,061	6,711,306	7,098,890
Net assets per share	Yen	2,052.46	2,250.77	2,175.04	2,334.07	2,723.61
Dividends per share (Interim dividend per share (included above))	Yen	180.00 (90.00)	110.00 (50.00)	120.00 (60.00)	150.00 (75.00)	180.00 (85.00)
Earnings per share	Yen	254.45	316.59	140.77	363.34	614.50
Diluted net income per share	Yen	–	–	–	–	–
Capital to asset ratio	%	61.8	66.9	65.6	68.6	73.6
Return on equity	%	12.8	14.7	6.3	16.1	24.3
Price earnings ratio	Multiple	14.5	15.3	33.8	13.5	7.7
Payout ratio	%	35.4	34.7	85.2	41.3	29.3
Number of employees [Average number of temporary employees]	Number of people	2,835 [61]	2,763 [58]	2,709 [51]	2,644 [54]	2,562 [65]
Total shareholder return [Index: TOPIX including dividends]	% %	134.8 [130.7]	179.7 [116.5]	180.5 [133.7]	191.1 [154.9]	190.5 [147.1]
Highest stock price	Yen	7,763	9,147 □5,419	5,180	5,905	5,448
Lowest stock price	Yen	5,051	7,252 □4,005	4,156	4,545	4,050

Notes: 1. Operating revenues do not include consumption taxes.

2. Diluted net income per share is not listed as there are no applicable dilutive stock.

3. Net assets per share is calculated on the basis of the number of shares outstanding at the end of the fiscal year, excluding treasury stock, and earnings per share is calculated on the basis of the average number of outstanding shares during the fiscal year, excluding treasury stock.

4. NTT conducted a two-for-one stock split of its common stock with an effective date of July 1, 2015. Accordingly, for net assets per share and earnings per share for each fiscal year, and dividends per share and interim dividends per share for the fiscal year ended March 31, 2016, figures have been adjusted to reflect the stock split.

5. Number of employees indicates the number of full-time employees as of March 31 of each of the years indicated. The average annual number of temporary employees for the fiscal years indicated is shown in brackets.

6. The highest and lowest stock prices are from the First Section of the Tokyo Stock Exchange.

7. The top-line highest and lowest stock prices for the 31st business term are from before the stock split, and the highest and lowest stock prices marked with a “□” symbol are from after the stock split.

8. NTT's accounting policy was changed for the fiscal year ended March 31, 2019 and its main financial and other data for prior fiscal years are presented after having applied this change retroactively. Please see "Item 5 Financial Information – 2. Financial Statements (Change in Accounting Policy)" for additional details.

2. History

(1) Background

On August 1, 1952, pursuant to the Nippon Telegraph and Telephone Public Corporation Act (Act No. 250 of July 31, 1952), NTT Public was incorporated, with its capital stock wholly owned by the Government. On April 1, 1985, pursuant to the Nippon Telegraph and Telephone Corporation Act (Act No. 85 of December 25, 1984), NTT was established, with its capital stock wholly owned by the Government. When NTT was established, it succeeded to all the rights and obligations of NTT Public.

(2) History

April 1985	NTT was incorporated as a limited liability, joint-stock company.
February 1987	NTT's Shares were listed on the Tokyo Stock Exchange (the "TSE") and other stock exchanges in Japan.
July 1988	NTT's DATA Communications Division was transferred to NTT DATA System Service Corporation.
April 1992	Implemented organizational reform corresponding to the long distance and regional communications service divisions through a review of, and commitment to, a divisional system.
July 1992	Business operations relating to car phones, mobile phones, maritime telephones, aircraft passenger telephones and radio paging were transferred to NTT Mobile Communications Network, Inc.
December 1992	NTT's electricity, construction and building management operations were transferred to NTT FACILITIES.
September 1994	NTT ADSs were listed on the New York Stock Exchange (the "NYSE").
October 1994	NTT's Shares were listed on the London Stock Exchange.
April 1995	NTT DATA System Service Corporation was listed on the TSE.
September 1997	NTT transferred its software headquarters business to NTT COMMUNICATIONWARE CORPORATION.
August 1998	NTT DATA System Service Corporation changed its business name to NTT DATA CORPORATION.
October 1998	NTT Mobile Communications Network, Inc. was listed on the TSE.
July 1999	Implemented a group reorganization by which NTT became a holding company. Operation of NTT's intra-prefectural communications services was transferred to its two wholly owned subsidiaries, NTT East and NTT West, and inter-prefectural communications services were transferred to NTT COMMUNICATIONS CORPORATION, also a wholly owned subsidiary of NTT.
April 2000	NTT Mobile Communications Network, Inc. changed its business name to NTT DOCOMO, INC.
November 2000	NTT COMMUNICATIONWARE CORPORATION changed its business name to NTT COMWARE CORPORATION.
March 2002	NTT DOCOMO, INC. was listed on the London Stock Exchange and the NYSE.
November 2004	NTT URBAN DEVELOPMENT CORPORATION was listed on the TSE.
January 2009	NTT implemented a 100-for-1 common stock split.
July 2015	NTT implemented a 2-for-1 common stock split.
November 2018	NTT established a wholly owned subsidiary, NTT, Inc., and transferred NTT Communications, Dimension Data, NTT DATA and other items under NTT, Inc..

3. Description of Business

NTT Group consists of NTT (as the holding company) , its 919 subsidiaries and its 123 affiliated companies (as of March 31, 2019). The principal business segments of NTT Group are its mobile communications business, regional communications business, long distance and international communications business, and data communications business. NTT Group also has an other business segment.

NTT Group is categorized as a listed company pursuant to Article 49, Paragraph 2 of the Cabinet Office Ordinance on Regulations on Transactions of Securities, and accordingly insignificance tests for material facts for purposes of insider trading regulations are determined on the basis of consolidated figures.

Details of the business and corporate position of the consolidated subsidiaries are described below.

NTT Group's five business segments are described under Note 6 to the Consolidated Financial Statements.

(1) Mobile Communications Business Segment

The principal services in the mobile communications business segment are mobile phone services and related services.

(Consolidated Subsidiaries)

NTT DOCOMO and 102 other companies.

(2) Regional Communications Business Segment

The principal services in the regional communications business segment are domestic intra-prefectural communications services and related ancillary services.

(Consolidated Subsidiaries)

NTT East, NTT West, and 43 other companies.

(3) Long Distance and International Communications Business Segment

The principal services in the long distance and international communications business segment are domestic inter-prefectural communications services, services related to the international communications business, services related to the solutions business and related services.

(Consolidated Subsidiaries)

NTT, Inc., NTT COMMUNICATIONS, Dimension Data Holdings plc, NTT Security Corporation, NTT America, Inc., NTT EUROPE LTD., Lux e-shelter 1 S.a.r.l., Arkadin International SAS, RagingWire Data Centers, Inc., NTT Global Networks Incorporated, NETMAGIC SOLUTIONS PRIVATE LIMITED, GYRON INTERNET LIMITED, NTT Plala Inc., Spectrum Holdings Inc., and 356 other companies.

(4) Data Communications Business Segment

The principal services in the data communications business segment are network system services and system integration services.

(Consolidated Subsidiaries)

NTT DATA, NTT DATA, Inc., NTT DATA Services, LLC, EVERIS PARTICIPACIONES, S.L.U., NTT Data International L.L.C., and 301 other companies.

(5) Other Business Segment

The other business segment includes NTT's operations, and its real estate, finance, construction and power, systems development and development of advanced technologies businesses.

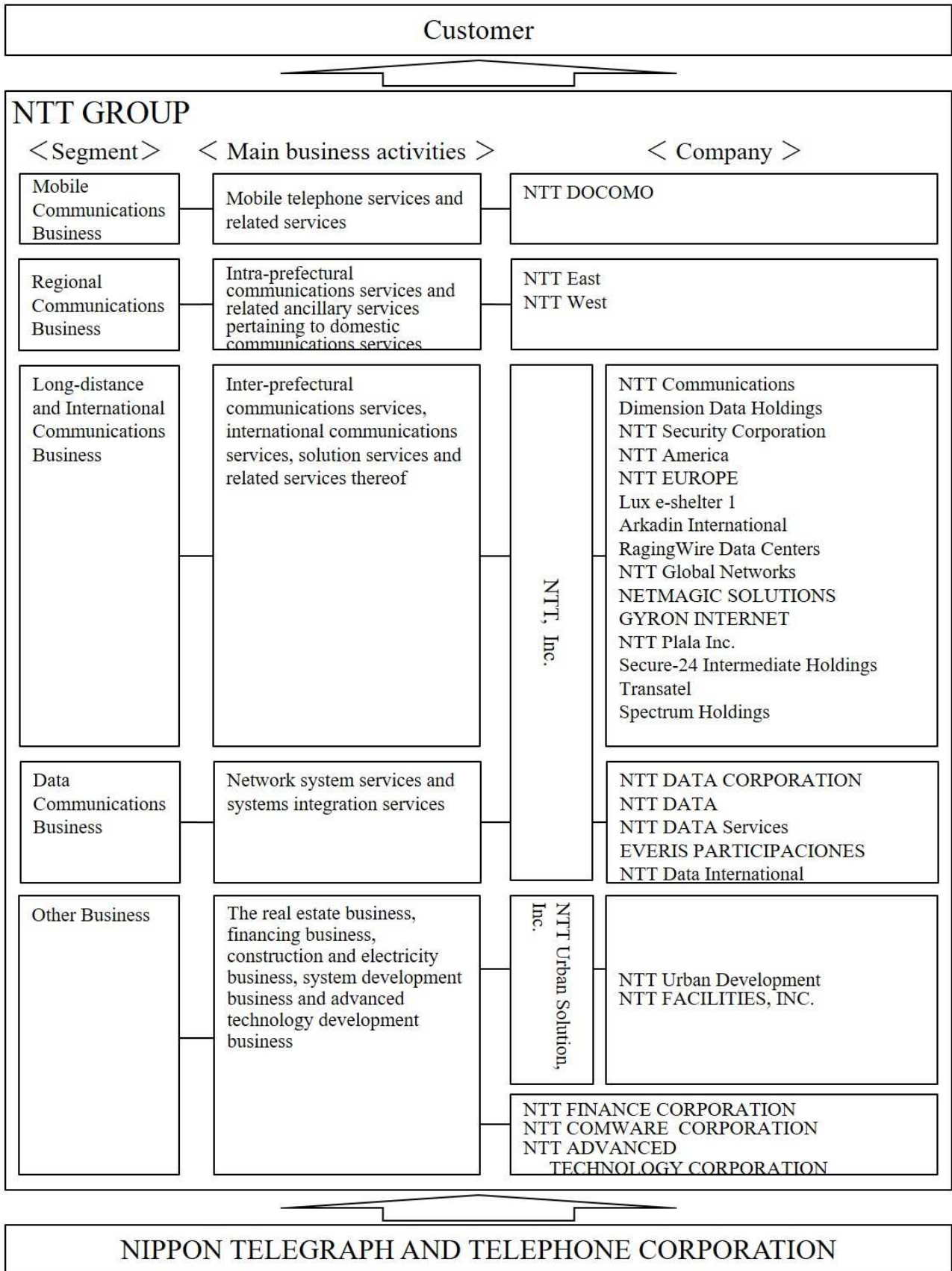
(Consolidated Subsidiaries)

NTT Urban Solution, NTT Urban Development, NTT FINANCE, NTT FACILITIES, NTT COMWARE CORPORATION, NTT ADVANCED TECHNOLOGY CORPORATION, and 89 other companies.

Note: In this Annual Securities Report, "NTT DOCOMO" refers to NTT DOCOMO, INC., "NTT East" refers to Nippon Telegraph and Telephone East Corporation, "NTT West" refers to Nippon Telegraph and Telephone West Corporation, "NTT Communications" refers to NTT Communications Corporation, "NTT DATA" refers to NTT DATA CORPORATION, and "NTT Plala" refers to NTT Plala, Inc.

A diagram of NTT Group's business lines is included on the following page.

Business Lines Diagram



4. Information on Affiliates

<u>Name</u>	<u>Location</u>	<u>Common Stock</u>	<u>Principal Business</u>	<u>Percentage of Voting Rights</u>	<u>Relationship</u>
(Consolidated Subsidiaries) NTT DOCOMO, INC. Notes: *1, *2, *3, *4, *5	Chiyoda-ku, Tokyo	(millions of yen) 949,680	Mobile Communications Business	64.11 (0.01)	Provides mobile communication services and smart life area services. Concurrent Officers Position Held: No
Nippon Telegraph and Telephone East Corporation Notes: *1, *3, *4, *5	Shinjuku-ku, Tokyo	(millions of yen) 335,000	Regional Communications Business	100.00	Provides intra-prefectural communications services in the eastern part of Japan. NTT is the provider of a long-term capital loan to NTT East. Concurrent Officers Position Held: Yes
Nippon Telegraph and Telephone West Corporation Notes: *1, *3, *4	Chuo-ku, Osaka	(millions of yen) 312,000	Regional Communications Business	100.00	Provides intra-prefectural communications services in the eastern part of Japan. NTT is the provider of a long-term capital loan to NTT West. Concurrent Officers Position Held: Yes
NTT, Inc. Note: *1	Chiyoda-ku, Tokyo	(millions of yen) 574,730	Long Distance and International Communications Business Data Communications Business	100.00	Governance, strategy planning and policy promotion for the global business of NTT Group. Concurrent Officers Position Held: Yes
NTT Communications Corporation Notes: *1, *3, *4	Chiyoda-ku, Tokyo	(millions of yen) 230,979	Long Distance and International Communications Business	100.00 (100.00)	Provides inter-prefectural communications services, international communications services and internet-related services. NTT is the provider of a long-term capital loan to NTT Communications. Concurrent Officers Position Held: No

<u>Name</u>	<u>Location</u>	<u>Common Stock</u>	<u>Principal Business</u>	<u>Percentage of Voting Rights</u>	<u>Relationship</u>
Dimension Data Holdings Note: *1, *4	England	(ten thousands of U.S. dollars) 88,852	Long Distance and International Communications Business	100.00 (100.00)	Provides IT system building and maintenance support for corporations. Concurrent Officers Position Held: Yes
NTT Security Corporation Note: *4	Chiyoda-ku, Tokyo	(millions of yen) 25,250	Long Distance and International Communications Business	100.00 (100.00)	Provides professional security services Concurrent Officers Position Held: Yes
NTT America Note: *1	U.S.A.	(ten thousands of U.S. dollars) 269,538	Long Distance and International Communications Business	100.00 (100.00)	Provides ICT services in North America. Concurrent Officers Position Held: No
NTT EUROPE	England	(ten thousands of British pounds) 15,383	Long Distance and International Communications Business	100.00 (100.00)	Provides ICT services in Europe. Concurrent Officers Position Held: No
Lux e-shelter 1	Luxembourg	(ten thousands of Euros) 40,321	Long Distance and International Communications Business	86.70 (86.70)	Provides data center-related services in Europe. Concurrent Officers Position Held: No
Arkadin International	France	(ten thousands of Euros) 22,305	Long Distance and International Communications Business	100.00 (100.00)	Provides teleconference, web conference and video conference services. Concurrent Officers Position Held: No
RagingWire Data Centers	U.S.A.	(ten thousands of U.S. dollars) 42,042	Long Distance and International Communications Business	100.00 (100.00)	Provides data center-related services in North America. Concurrent Officers Position Held: No

<u>Name</u>	<u>Location</u>	<u>Common Stock</u>	<u>Principal Business</u>	<u>Percentage of Voting Rights</u>	<u>Relationship</u>
NTT Global Networks	U.S.A.	(ten thousands of U.S. dollars) 51,353	Long Distance and International Communications Business	100.00 (100.00)	Provides network services. Concurrent Officers Position Held: No
NETMAGIC SOLUTIONS	India	(ten thousands of Indian rupees) 1,661,093	Long Distance and International Communications Business	100.00 (100.00)	Provides data center-related services in India. Concurrent Officers Position Held: No
GYRON INTERNET	England	(ten thousands of British pounds) 9,300	Long Distance and International Communications Business	100.00 (100.00)	Provides data center-related services in the UK. Concurrent Officers Position Held: No
NTT Plala Inc.	Toshima-ku, Tokyo	(millions of yen) 12,321	Long Distance and International Communications Business	95.39 (95.39)	Provides internet connection and video distribution services. Concurrent Officers Position Held: No
Secure-24 Intermediate Holdings	U.S.A.	(ten thousands of U.S. dollars) 0	Long Distance and International Communications Business	100.00 (100.00)	Provides IT-managed services in North America. Concurrent Officers Position Held: No
Transatel	France	(ten thousands of Euros) 586	Long Distance and International Communications Business	80.70 (80.70)	Provides mobile connectivity services for IoT. Concurrent Officers Position Held: No
Spectrum Holdings *1	British Virgin Islands	(ten thousands of U.S. dollars) 410,193	Long Distance and International Communications Business	100.00 (100.00)	Manages subsidiaries of Dimension Data Holdings in Europe and North America. Concurrent Officers Position Held: No

<u>Name</u>	<u>Location</u>	<u>Common Stock</u>	<u>Principal Business</u>	<u>Percentage of Voting Rights</u>	<u>Relationship</u>
NTT DATA CORPORATION Notes: *1, *2, *3, *4, *5	Koto-ku, Tokyo	(millions of yen) 142,520	Data Communications Business	54.21 (54.21)	Provides data communications systems services and network system services. Concurrent Officers Position Held: No
NTT DATA Note: *1	U.S.A.	(ten thousands of U.S. dollars) 482,613	Data Communications Business	100.00 (100.00)	Consulting, system design and development in North America. Concurrent Officers Position Held: No
NTT DATA Services Note: *1	U.S.A.	(ten thousands of U.S. dollars) 211,429	Data Communications Business	100.00 (100.00)	Consulting, system design and development in North America. Concurrent Officers Position Held: No
EVERIS PARTICIPACIONES	Spain	(ten thousands of Euros) 12,031	Data Communications Business	100.00 (100.00)	Consulting, system design and development. Concurrent Officers Position Held: No
NTT Data International Note: *1	U.S.A.	(ten thousands of U.S. dollars) 484,807	Data Communications Business	100.00 (100.00)	Manages subsidiaries of NTT DATA CORPORATION in North America. Concurrent Officers Position Held: No
NTT-SH Corporation Note: *1	Chiyoda-ku, Tokyo	(millions of yen) 108,372	Other Business	100.00	Holding company of NTT URBAN DEVELOPMENT CORPORATION and NTT FACILITIES, INC. Concurrent Officers Position Held: No
NTT URBAN DEVELOPMENT CORPORATION Notes: *2, *4	Chiyoda-ku, Tokyo	(millions of yen) 48,760	Other Business	100.00 (100.00)	Real estate acquisition, development, leasing, and management. Concurrent Officers Position Held: No

<u>Name</u>	<u>Location</u>	<u>Common Stock</u>	<u>Principal Business</u>	<u>Percentage of Voting Rights</u>	<u>Relationship</u>
NTT FACILITIES, INC. Note: *4	Minato-ku, Tokyo	(millions of yen) 12,400	Other Business	100.00 (100.00)	Design, management, and maintenance of buildings, equipment, and electric power facilities. Concurrent Officers Position Held: No
NTT FINANCE CORPORATION Notes: *2, *4	Minato-ku, Tokyo	(millions of yen) 16,771	Other Business	100.00 (7.83)	Lease and installment sales of telecommunications-related devices, and billing and collection of charges for communications and other services. Concurrent Officers Position Held: No
NTT COMWARE CORPORATION Note: *4	Minato-ku, Tokyo	(millions of yen) 20,000	Other Business	100.00	Development, production, operation and maintenance of information communications systems and software. Concurrent Officers Position Held: No
NTT Advance Technology Corporation Notes: *1, *4	Saiwai-ku, Kawasaki	(millions of yen) 5,000	Other Business	100.00	Technology transfer, technology consulting, system design and development. Concurrent Officers Position Held: No
Others: 889 companies					

Notes: 1. The Principal Business column lists the segment of each company.

2. Numbers listed in parentheses under Percentage of Voting Rights indicate the percentage of voting rights held indirectly.

Furthermore, Common Stock figures for overseas subsidiaries include additional paid-in capital (APIC).

3. Note *1: Indicates a specified subsidiary.

4. Note *2: Company files an Annual Securities Report.

5. Note *3: During the current fiscal year, the company was party to an agreement relating to the continued usage of the results of the company's and NTT's core research and development, pursuant to which NTT is compensated for the provision of comprehensive services related to NTT's core research and development.

6. Note *4: During the current fiscal year, 19 of the companies subject to consolidated accounting were parties to an agreement with NTT for group management, with the objective of maximizing each group company's profits while also continuing to respect the mutual independence and autonomy of group companies. NTT is compensated for the provision of comprehensive services related to carrying out group management.

7. Note *5: The company's ratio of net sales (excluding sales among consolidated subsidiaries) to total consolidated sales is greater than 10:100. Key information on profit and loss for each such company is listed below. Descriptions for NTT DOCOMO and NTT DATA are omitted, as such companies are Annual Securities Report filing companies

	<u>Key Information on Profit and Loss</u>				
	<u>Operating Revenues</u> <u>(millions of yen)</u>	<u>Recurring Profit</u> <u>(millions of yen)</u>	<u>Net Income</u> <u>(millions of yen)</u>	<u>Net Assets</u> <u>(millions of yen)</u>	<u>Liabilities and Net Assets</u> <u>(millions of yen)</u>
NTT East	1,612,370	262,911	162,517	2,225,721	3,389,252

5. Employees

(1) Consolidated Basis

<u>Segment</u>	<u>Number of Employees</u>	
Mobile communications business	26,629	[8,482]
Regional communications business	79,534	[34,588]
Long distance and international communications business	48,020	[8,654]
Data communications business	123,884	[2,971]
Other business	25,284	[8,110]
Total	303,351	[62,805]

Note: Number of employees indicates the number of full-time employees. The average annual number of temporary employees for the fiscal year is shown in brackets.

(2) Non-Consolidated Basis of the Company

<u>Number of Employees</u>	<u>Average Age</u>	<u>Average Length of Employment (years)</u>	<u>Average Annual Salary (yen)</u>
2,562 [65]	41.3	16.8	9,114,270

<u>Segment</u>	<u>Number of Employees</u>	
Other business	2,562	[65]
Total	2,562	[65]

Notes: 1. Annual Average Salary includes both standard and extraordinary salaries and bonuses.

2. Number of employees indicates the number of full-time employees. The average annual number of temporary employees for the fiscal year is shown in brackets.

(3) Labor Union Status

The relationship between management and labor at NTT Group is stable, with no developments of note.

ITEM 2. BUSINESS OVERVIEW

1. Management Policy, Business Environment and Challenges Facing NTT

Forward-looking statements included herein are made as of the date of the filing of this Annual Securities Report.

(1) Management Policy

NTT Group, in order to “continue providing reliable and safe services, and to continue being of use as a company that will continue to be trusted by everyone” on the foundation of the confidence and performance that has sustained the development of telecommunications in Japan for over 100 years and on a world-leading research and development capacity, will aggressively develop businesses that meet diversifying and expanding ICT needs, will always obtain high levels of trust from customers and shareholders, and will target continuous development as it fulfills the legal obligations and social missions required of each of its businesses in the midst of severely competitive environments.

Under this basic policy, NTT Group formulated and announced its new “Your Value Partner 2025” Medium-Term Management Strategy, with the aim of working together with all its partners to promote initiatives to resolve social issues in its role as “Your Value Partner” in November 2018.

(2) Business Environment

With the rise in the global population and the spread of urbanization increasingly accelerating, and with progressively serious environmental problems being accompanied by an ever more uncertain international situation, there has been a movement around the world towards more sustainable societies, based on the SDGs (Sustainable Development Goals) adopted by the United Nations.

Under such social conditions, the information and telecommunications market is seeing intensifying competition, some of it driven by new players. NTT expects that new services that utilize cutting-edge technologies such as 5G, virtualization and AI will be developed, and through the process of digital transformation, smart societies will be achieved. When that happens, in order to create new value and to resolve societal issues, there will be an increase in cooperation and connections between a variety of players that transcends the boundaries of traditional business areas, and the role that information and communications will be required to play will increasingly expand.

(3) Challenges Facing NTT Group

Business Development Pursuant to the Medium-Term Management Strategy

Based on the “Your Value Partner 2025” Medium-Term Management Strategy, NTT Group will work with all our partners to resolve societal issues through our business activities. Going forward, we will continue our efforts to raise corporate value by proceeding with the following initiatives.

• Supporting our Customers’ Digital Transformations

NTT is increasing the number of projects it works on to promote a B2B2X model that utilizes digital services and data management, in order to achieve a smart society. In preparation for the implementation and expansion of 5G services, commercial services for which are scheduled to be launched in 2020, NTT will simultaneously generate new value by leveraging the characteristics of 5G to provide “highly immersive” and “interactive” services while proceeding to investigate possibilities with a wide range of partners. Furthermore, starting with the roll-out of new billing plans such as “Gigaho” and “Gigalight” by NTT DOCOMO, in June 2019, NTT will implement “personal solutions” that provide highly personalized offerings to each individual customer, thus supporting customers’ lifestyle changes.

• Accelerating Our Own Digital Transformation

While enhancing synergistic effects by combining integrated solutions to promote customer digitalization with innovative initiatives utilizing cutting-edge technology, in alignment with the NTT Group’s global resources and branding, NTT will strengthen the competitiveness and accelerate the growth of our international business as “One NTT.” Specifically, NTT plans to reorganize the operations of the three companies of NTT Communications, Dimension Data and NTT Security into a global operating company and a Japan operating company, under a global holding company established under NTT. This initiative will strengthen global corporate governance and allow the knowledge and experience of personnel who are closely familiar

with global markets to be rapidly integrated into the management of the global holding company, as NTT seeks to strengthen the global market competitiveness of NTT Group as a whole and improve profitability.

For the domestic business, measures for digitalization will be driven primarily by the CDOs (Chief Digital Officer) appointed to the main companies. In addition to seeking to raise efficiency through the digitalization of its own business processes by using AI and RPA (Robotic Process Automation), NTT will implement smart operations that do not require human intervention, which will include the business processes of external partner companies. Though the digitalization of its own business, NTT will facilitate the implementation of new services such as solutions that enable centralized and optimized management of ICT resources for corporate customers, and personalized solutions that leverage digital marketing for individual customers.

• ***Leveraging Talent, Technologies and Assets***

Centering on an urban solutions business promotion company, preparations for the establishment of which are currently under way, NTT will leverage NTT Group's strengths in real estate, ICT, energy and environmental technology and other fields to the fullest extent and advance a new urban solutions business beyond conventional real estate development. Furthermore, in order to swiftly provide new energy solutions, NTT has established an energy business promotion company, and will advance service development and provision, and the optimization of operating resources as a means of promoting a smart energy business that makes full use of ICT.

In addition, by leveraging management resources such as our community-based sales structures, cutting-edge technology, facilities and locations, and through collaborations with a variety of partners, such as local governments, NTT will support the improvement of administrative and life services and the revitalization of local industry. NTT will continue to focus its efforts on ensuring a safe and secure ICT platform, such as by further strengthening communications infrastructure used in disaster countermeasures, improving our initial response by means of AI-based damage prediction, and further improving the way NTT provides information during times of emergency.

• ***Initiatives for Cybersecurity***

To continue to counter increasingly sophisticated and complex cyberattacks on international events, governments, and companies, while promoting the introduction of the latest R&D results, NTT Group will enhance its initiative to develop security personnel with high-level skills.

• ***Promoting ESG Management and Enhancing the Returns of Shareholders to Improve Corporate Value***

By applying ESG (environmental, social, governance) management, NTT seeks to resolve societal issues, and achieve continuous improvements to corporate value. From the perspective of ESG management, the most important areas with the highest levels of priority have been set as “reducing environmental impact,” “strengthening security,” “leveraging diverse human resources,” “reinforcing disaster countermeasures,” and “strengthening corporate governance in order to achieve continuous growth,” with the aim of expanding business opportunities while minimizing business risks.

In addition, in order to secure high levels of stability and reliability for our network, NTT will work to provide even safer and more secure services through the accumulation of everyday network operational knowhow.

With regard to dividends, NTT's basic policy is to steadily increase dividends, and NTT also flexibly carries out buybacks to improve capital efficiency

Promotion of Fundamental Research & Development, etc.

As well as strengthening joint research activities with a variety of research institutions and proactively using cutting-edge technology from outside the company, we plan to expand research investments into new growth areas. Moreover, NTT will work to globalize research and development by strengthening basic research in overseas locations. Specifically, NTT will establish three research locations overseas to take ownership of the research themes of quantum science & computing, cryptography & information security and medical & health informatics, rolling out the results of research on a global basis and promoting the globalization of research targets.

2. Risk Factors

In addition to the information contained in this Annual Securities Report relating to NTT Group's business, accounting and other matters, prospective investors should also carefully consider the risks described below related to NTT Group's business environment, business strategy and operations, regulations to which NTT is subject and NTT's relationship with the Government, which may be material to such investors' judgment, as summarized below.

Forward-looking statements included herein are made as of the date of the filing of this Annual Securities Report. Additional risks not currently known to NTT or that NTT now deems immaterial may also impair NTT Group's business operations. The forward-looking statements included in this Annual Securities Report also involve risks and uncertainties. NTT Group's actual results could differ materially from those anticipated in these forward-looking statements as a result of a number of factors, including the risks NTT Group faces as described below and elsewhere in this Annual Securities Report.

Risks Associated with the Business Environment and NTT Group's Corresponding Business Strategies

NTT Group's business may be affected by both the global and Japanese economic situation.

NTT Group has operations all over the world.

An economic slowdown or deceleration in the economic growth of any of these regions may have an adverse effect on the demand for the services that NTT Group provides or on its operations.

NTT Group also owns investment securities and other financial assets. If their asset value were to decline because of a recession in the stock and other financial markets, the resulting impairment losses may adversely affect NTT Group's results of operations. NTT Group pension investments may also be adversely affected by the global and Japanese economic situation.

In addition, although NTT Group evaluates its means of capital procurement, including issuing corporate bonds and obtaining loans, any substantial fluctuations in the financial markets may lead to increases in NTT Group's financing costs.

As a result, NTT Group's results of operations and financial condition may be adversely affected. In consideration of these risks, NTT Group established a risk management policy, and in accordance with this policy, hedges risks using derivative transactions including forward exchange contracts. In addition, NTT Group is working to diversify its procurement procedures and to secure low-interest and stable financing.

NTT Group's operating revenues may suffer from changes in market structure and increased competition.

In the information and communications market and amid a fierce competition involving new players, new services utilizing advanced technologies such as 5G, virtualization, and AI have developed, and it is anticipated that a smart society may be achieved through digital transformation. While market competition that surpasses existing business sector boundaries continues to further intensify, such as through various new stakeholders joining telecommunications operators in the market and expanding services from providers of over-the-top content ("OTT" a content distribution service utilizing other companies' communications infrastructure, allowing a service provider to distribute services without owning its own communications infrastructure), collaborative coordination and cooperation among businesses operators to create new added value is also progressing. Moreover, NTT Group conducts a variety of business activities in markets outside of the information and communications sector, and in each market, intense competition resulting from structural changes is increasing.

If NTT Group is unable to respond appropriately to increased competition and other changes in the structure of the markets in which it operates, its operating revenues may decline. In the information and communications market, NTT Group's results of operations and financial condition could still be adversely affected if, despite these efforts, intensifying competition due to new competitors entering the market, and maintenance and further expansion of NTT's customers base through new billing plans, do not proceed as expected. Moreover, in the information services market, the growth of information service companies in such as India and China, is bringing about global competition. Intensified competition resulting from new competitors' aggressive market entry may have an adverse effect on NTT Group's results of operations and financial condition. Furthermore, it is possible that each of NTT Group's businesses in other markets will fail to achieve forecasted revenues, which may result in an adverse effect on NTT Group's results of operations and financial condition.

In consideration of these risks, NTT Group formulated and announced its new “Your Value Partner 2025” Medium-Term Management Strategy in November 2018, and promoted various initiatives based on the four pillars of the Medium-Term Management Strategy: “support our customers’ digital transformations,” “accelerate our own digital transformation,” “leverage talent, technologies, and assets,” and “promote ESG management, and enhance the return of shareholders to improve corporate value.”

NTT Group’s growth in its global business may be lower than anticipated.

NTT Group is expanding its global business as a cornerstone of its operations, and has also implemented initiatives to accelerate profit creation in this area.

However, if these efforts do not progress as anticipated, or the cloud services market does not grow as anticipated, or revenues do not grow as expected due to increased competition or other factors, NTT Group’s results of operations and financial condition may be adversely affected.

In consideration of these risks, and in order to deliver consistent growth of its global business operations, NTT Group has worked on restructuring its global business. NTT Group established a global holding company under its umbrella, and will strengthen its global business promotional structure by formulating strategies quickly by embracing and integrating the diverse talents, skills and management expertise in global markets of its personnel in each of its group companies and by establishing a global operating company under the umbrella of a global holding company. Moreover, NTT Group will strengthen its sales force and marketing efforts, such as by expanding its global accounts and further promoting its up-selling and cross-selling efforts, in addition to further strengthening its global business promotional structure and strengthening its services and products. In addition, stringent cost-efficiency initiatives are also underway in each of the Group’s companies to, among other things, strengthen and improve the efficiency of services and operations, and reduce costs and improve income by strengthening collaboration on deliveries across NTT Group. NTT Group also monitors the progress of these initiatives on a regular basis and responds to any related developments promptly when the need arises.

NTT Group may not achieve anticipated cost savings.

NTT Group is working to generate profits by increasing capital expenditure efficiencies and reducing costs in the domestic fixed-line and mobile communications markets.

However, it is possible that NTT Group will be unable to fully achieve the anticipated optimization of its capital expenditures or reductions in sales expenses, facility-related costs, and personnel and other costs due to changes in the competitive environment or due to the current state of progress in streamlining equipment or general business operations. Any such failure to achieve intended cost reductions could adversely impact NTT Group’s results of operations and financial condition.

In consideration of these risks, and to improve capital expenditure efficiencies, NTT Group is working to simplify and streamline the network in each company, and aims to further improve productivity in various operations by digitizing its own business processes using AI and other technologies. Furthermore, NTT established a procurement company in the United States: NTT Global Sourcing, Inc., which will engage in centralized price negotiations and the execution of comprehensive agreements with global vendors and other parties for hardware, software, and services purchased in common by each Group company. NTT will reduce the total procurement costs of NTT Group, as well as unify the specifications of procurement items and narrow down models. NTT, NTT East and NTT West are excluded from this procurement system.

For IT systems, efforts are also being made to promote efficiency through standardization and by utilizing the latest technology, such as virtualization. In addition, by using NTT Group’s RPA (WinActor) for business process, NTT Group is continuously working toward further improving its business operations efficiency, and is working to ensure simple yet highly productive business operations based on initiatives such as the conversion to the B2B2X model.

NTT Group also monitors the progress of these initiatives on a regular basis and responds to any related developments promptly when the need arises.

NTT Group's international and domestic investments, acquisitions, alliances and corporate collaborations may not be successful, or NTT Group may be unable to exert the necessary control over its investments.

NTT Group engages in joint ventures, alliances and collaborations, as well as acquisitions and other strategic investments to expand its global business operations in particular in response to changes in market structure and customers' needs.

However, NTT Group may not be able to maintain or enhance the value or financial performance of, or achieve sufficient synergies with, the domestic or overseas operations in which it has invested or agreed to invest or that it may in the future acquire. In addition, there may be occasions when NTT Group will suffer potential losses resulting from the dissolution or disposition of its investments, partnerships or other cooperative initiatives. Furthermore, the recent increase in the number of foreign subsidiaries within NTT Group may result in increased fragmentation within the group and render a common understanding difficult to achieve. There may be occasions when it is difficult for NTT to exert the control over its overseas subsidiaries necessary to oversee their business and operations. In addition, there is a risk that factors related to cross-border business, such as legal restrictions relating to investment and competition, differences in tax systems, differences in business customs including contract practices, labor relations, and international politics, may pose challenges to NTT Group's management of its overseas business activities. If such risks materialize, NTT Group's results of operations and financial condition may be adversely affected.

In consideration of these risks, NTT Group is proactively striving to expand its global business operations, and has worked to achieve expected returns from these endeavors by carrying out periodic post-acquisition monitoring of its investments. In addition, NTT Group established a global holding company, NTT, Inc., and is taking initiatives to further enhance the group governance and risk management of its global business.

NTT Group may be unable to obtain the licenses for third-party intellectual property necessary for the operation of its business, may be subject to claims related to the infringement of the intellectual property from other companies, or may be unable to protect its own intellectual property rights, all of which could adversely affect its business operations and financial position.

In order for NTT Group and its business partners to carry out their business operations, they at times need to obtain licenses and other rights to use the intellectual property and other rights of third parties. NTT Group and its business partners have entered into the necessary intellectual property licenses, and based on their experience as well as industry practice, NTT Group believes that it will continue to be able to obtain such licenses on reasonable terms.

However, if NTT Group is unable to reach or maintain agreements with the holders of such rights on commercially acceptable terms or at all, NTT Group and its business partners may not be able to provide certain technologies, products or services to its customers.

Further, as NTT Group's global business expands, particularly through overseas acquisitions, claims of intellectual property infringement and other claims against NTT Group, particularly by foreign corporations in jurisdictions in which it has completed acquisitions, may increase as it develops new products, services and technologies, and acquires companies that may be subject to ongoing or future intellectual property litigation. If NTT Group is subject to claims of infringement of intellectual property rights, it may be required to expend considerable time and costs to reach a resolution. If such claims are determined adversely to NTT Group, it may be required to pay substantial damages or royalties to third parties, or may be subject to a temporary or permanent injunction preventing certain NTT Group companies from offering certain products or services and required to develop non-infringing products or technologies, which could result in a loss of revenues from businesses related to such rights. Further, any improper use by third parties of NTT Group's intellectual property and other rights could result in a decrease in NTT Group's contemplated license revenues and compromise NTT Group's competitive advantage.

The occurrence of any of these risks could adversely affect NTT Group's results of operations and financial condition.

In consideration of these risks, NTT Group strategically acquires intellectual property rights, and periodically conducts assessments of intellectual property rights, including measures to properly identify intellectual property rights held by NTT Group and by third parties.

NTT Group may be unable to hire or retain necessary personnel, which could have an adverse effect on NTT Group's results of operations and financial condition.

A number of companies both in Japan and abroad have entered the information and communications market, in which the diversity and sophistication of services and technology has rapidly increased, and where changes in the market, with a focus on cloud services in particular, are expected to accelerate even further going forward. In this environment, NTT Group's ability to hire and retain highly skilled personnel significantly affects the success of its business.

If the hiring or retention of such key, highly skilled personnel by NTT Group does not proceed as expected, it could adversely affect NTT Group's ability to develop new technologies, design new products, enhance its existing products and execute its growth strategy, which could negatively impact its results of operations and financial condition.

In consideration of these risks, NTT Group implemented measures to strengthen employee training, in addition to providing training in collaboration with the government, other businesses and educational institutions. NTT Group works to understand each employee's work responsibilities, work environment, compensation and benefits and career goals by arranging regular meetings with employees to enable NTT Group to implement preventive measures promptly as necessary to retain its employees. In addition, NTT established a new global research center in the United States, NTT Research, Inc., which conducts fundamental and innovative research on next-generation technologies, and has also promoted the retention of excellent researchers by improving the position of research staff. NTT Group will prevent personnel leakage by preparing an environment engaged in advanced research.

Risks Associated with Business Management

Cyberattacks could cause service interruptions or cause the quality of NTT Group's service to decline, which may affect NTT Group's results of operations and financial condition.

In recent years, as threats related to information security have become increasingly sophisticated and diversified, causing incidents such as damage due to cyberattacks and information leaks to emerge as social problems, developing information security countermeasures for smartphones, cloud services and other new ICT services has become an increasing concern.

Given these circumstances, service interruptions or disruptions in the quality of NTT Group's services due to cyberattacks, such as targeted attacks or unauthorized access of NTT Group's communication networks, servers or other equipment, or the leakage, tampering or loss of information due to intrusions into company networks, could occur, which could harm NTT Group's credibility and corporate image and thereby adversely affect NTT Group's results of operation and financial condition.

In consideration of these risks, NTT Group has been promoting the introduction of the latest research results, continuously strengthening network security, and strengthening its efforts to train highly-skilled personnel in the security field.

System disruptions, network disruptions, disruptions to business operations or issues with system architecture that occur as a result of natural disasters may affect NTT Group's results of operations and financial condition.

NTT Group has operations both domestically and abroad, and supports society and business activities through its communications networks and information systems. In addition, NTT Group provides a multitude of services that serve as necessary lifelines that ensures people's safety in their everyday lives.

With respect to the provision of these services, natural disasters such as earthquakes, tsunamis, typhoons and floods, pandemics such as new strains of influenza, and other issues including a larger-than-expected increase in telecommunication traffic, terrorism, armed action, regional conflict and various other events could cause system and network failure or threaten the safety of NTT Group employees. As a result, there may be occasions when disruptions in NTT Group's business operations make it impossible to provide reliable services, which may lead to NTT Group being held liable for related damages, potentially damaging NTT Group's credibility and corporate image. A large-scale disaster in particular could not only severely damage NTT Group's telecommunications networks, but could also harm NTT Group employees or cause damage to systems that could take a long time to restore, and the resulting emergency electricity use restrictions could hinder NTT Group's ability to provide reliable services. These events may lead to reductions in income and substantial repair costs.

In consideration of these risks, NTT Group has implemented a variety of measures, including strengthening the durability and water resistance of exchange offices, re-assessing its transmission lines, making capital investments in its network facilities to strengthen

network resilience and accelerate response time in the event of malfunctions, conducting safety confirmation drills for its employees in preparation for disasters and improving initial response to restoration activities by AI-based damage prediction. Through these various efforts, NTT Group is taking steps towards ensuring safe and secure operations of its networks and systems which are essential to the provision of services.

NTT Group also provides and delivers systems and services to customers in the system integration business, which typically operates under a service contract model in which services are completed from the receipt of orders through the delivery dates.

As a result of this model, NTT Group generally assumes full contractual responsibility at all stages, but there is a possibility that a deviation from initial estimates or problems in project management at the development stage could result in cost overruns or losses due to delivery delays.

In consideration of these risks, for projects that are above a certain size, NTT Group has a review committee review cost estimates and the feasibility of project plans, and also monitors the progress of projects after they have been commissioned.

NTT's reputation and credibility may be affected by fraud or misconduct in Japan or abroad, or by inappropriate use or leaks of confidential business information and personal information.

NTT Group is subject to a wide variety of laws and regulations, as the scope of its business encompasses a variety of products and services both in Japan and abroad. As a result, some of NTT Group's business activities require licenses, notifications, and permit approvals. In addition, it is possible that NTT Group's growing business operations, especially outside of Japan, could be subject to additional burdens stemming from, among other things, the local rules and regulations of the countries in which NTT operates, or the lack thereof, the unpredictable nature of commercial and judicial interpretations of such local laws, the adoption of new laws and the revision of existing laws.

With respect to laws and regulations, it may not always be possible to eliminate compliance risk and reputational risk from loss of credibility, including, for example, in the case of an employee's improper personal behavior. The occurrence of any of the risks described above could adversely affect NTT Group's business, including its reputation and credibility, as well as NTT Group's ability to obtain new subscribers or its eligibility to secure governmental contracts, which could in turn adversely affect NTT Group's results of operations and financial condition.

In consideration of these risks, based on NTT Group's understanding that legal compliance is an extremely important corporate responsibility, NTT Group is working towards further strengthening its compliance systems in light of the tightening of bribery and anti-corruption laws in foreign countries, particularly the United States and the United Kingdom.

There is increasing societal demand to ensure the protection of confidential information, such as customers' personal information, as well as increasing requirements to protect such information from a legal standpoint.

However, given the further sophistication of criminal activities aimed at obtaining personal information and other confidential information, it is possible that NTT Group will be unable to eliminate the risk of a leak or misuse of confidential information.

In consideration of these risks, NTT Group has historically made efforts to protect confidential information, such as its customers' personal information, and NTT Group has also implemented the "NTT Group Information Security Policy," which requires enhanced internal information management, training and awareness-raising for officers and employees. NTT Group expects to continue being able to ensure the proper management of confidential information in accordance with this policy.

Misuse of products and services offered by NTT Group may have an adverse impact on NTT Group's credibility and corporate image and could expose NTT Group to liability.

NTT Group's products and services may be inappropriately used by users. For example, if cybercrimes, such as unsolicited bulk e-mails, illegal money transfers made through online banking, or bank transfer scams, are perpetrated using NTT Group's services, or if NTT Group customers experience incidents of unsolicited bulk e-mails being sent through its servers, NTT Group customers may be harmed as a result of these actions. Further, there has been a wide range of debate regarding minors' access to illegal or harmful websites, and the effectiveness of filtering services intended to restrict minors from accessing such harmful sites. In addition, there are also concerns over the increasing incidence of accidents caused by the use of mobile phones while operating vehicles or

bicycles, as well as issues with increasing occurrence of problems caused by the use of mobile phones while walking. In addition, there are issues concerning the high fees charged for the excess use of paid content by subscribers and the leaking of private information by fraudulent applications and software.

Such issues may adversely affect the credibility of NTT Group's products and services, adversely impact customer satisfaction, and tarnish NTT Group's corporate image, which may result in an increasing number of cancellations among current subscribers and an inability to acquire the anticipated number of new subscribers, which could adversely affect NTT Group's results of operations and financial condition.

In consideration of these risks, NTT Group has worked to provide products and services that can be used comfortably and securely, including providing locks on smartphone use while users are walking, filtering and other functions, and has promoted awareness activities to improve knowledge and personal behaviors with respect to its products and services.

NTT Group may be subject to unfavorable decisions in litigation or other proceedings, which could have an adverse effect on its operations.

Because NTT Group operates through a large number of sites both domestically and abroad, and offers a wide array of goods and services, it is possible that NTT Group will become a party to various types of litigation, disputes, or claims for damages.

If NTT Group were to become party to any such litigation, dispute, or claim for damages, in addition to the possibility of a potential financial burden, an unfavorable decision could harm NTT Group's credibility and corporate image, and thereby adversely affect NTT Group's results of operation and financial condition.

In consideration of these risks, NTT Group monitors litigation, disputes and claims against all NTT Group companies, including currently active claims and pending claims, and responds to any related developments promptly when the need arises.

Risks Associated with the Government, Including Rules, Regulations and Others

Changes or decisions regarding telecommunications regulations may affect NTT Group's business.

The regulation of the Japanese telecommunications industry has evolved in many areas, including amendments to telecommunications laws aimed at promoting competition, protecting service users and other purposes.

Decisions relating to Government regulations and the resulting changes in the telecommunications industry may affect NTT Group's results of operations and financial condition.

In consideration of these risks, NTT Group is taking appropriate steps to obtain necessary information on developments relating to the Government's information and telecommunications policies and regulations, and has also presented its views through public comments and hearings.

For a summary of Government regulations currently under review, see "Supplemental Information-Regulations Applicable to NTT's Business- (1) Regulations."

The frequencies that NTT Group can use are limited, and it is possible that it will not be able to secure adequate frequency spectrum for its operations.

NTT Group has limited frequencies available for its services.

While the number of subscribers and the traffic per subscriber are expected to increase in conjunction with the expanded use of devices such as smartphones and tablets, if NTT Group were unable to obtain the frequency spectrum required for unhindered operation or if the start of operations on a different band frequency did not progress as planned, NTT Group may suffer degradation of service quality and incur additional costs. In addition, NTT Group may face constraints in providing wireless services or lose subscribers to competitors, which could have a material adverse effect on NTT Group's results of operations or financial condition.

In consideration of these risks, NTT Group is working to obtain new frequencies and implementing carrier aggregation with respect to its mobile communications networks to improve the efficiency of frequency usage.

For additional details, see “Supplemental Information-Regulations Applicable to NTT’s Business- (1) Regulations- 3. Radio Act.”

NTT Group may be impacted by laws, regulations and systems relating to the environment, such as those relating to reduction of greenhouse gas emissions.

NTT Group is subject, both in Japan and overseas, to laws and regulations relating to the environment, such as those governing the reduction of greenhouse gas emissions, energy conservation, waste disposal and harmful substance removal.

In the event that stricter laws and regulations and societal demands with respect to the environment materialize in the future, or new laws and regulations are introduced, costs may increase, which may impact NTT Group’s financial condition and results of operations.

In consideration of these risks, NTT Group has established its “2030 Environmental Targets ” to improve power efficiency and reduce waste, and is working to reduce the environmental burden on society by implementing a variety of forward-looking measures, such as by using high-efficiency DC power supply systems (HVDC) and other high-efficiency power supplies, as well as closed-loop recycling for plastic used in external facilities.

The Government owns enough NTT Shares to give it considerable influence over whether resolutions at NTT shareholder meetings are adopted.

The Government, through the Minister of Finance, currently owns 35.42% of NTT’s outstanding Shares excluding treasury stock, which equates to 35.47% of the voting rights. The Government, in its capacity as a shareholder, votes at NTT shareholder meetings and, by virtue of its statutorily mandated position as the largest shareholder, has the power to exert considerable influence over decisions made at such meetings. In 1997, in a statement at the Diet, the Government stated that it did not intend to actively use its position as a shareholder to direct the management of NTT. In fact, the Government has not historically used its power as a shareholder to direct the management of NTT. For details regarding the regulatory authority the Government legally has with respect to NTT Group, see “Supplemental Information-Regulations Applicable to NTT’s Business-Regulations.”

Supplemental Information: Regulations Applicable to NTT's Business

(1) Regulations

The Ministry of Internal Affairs and Communications (the "MIC") is the main regulatory body in Japan responsible for the information and telecommunications industry. The Telecommunications Business Act gives the Minister the authority to regulate telecommunications companies. The Telecommunications Business Act came into effect in 1985 at the same time that NTT was incorporated as a private company and significant changes in the legislative and regulatory framework for telecommunications in Japan opened the Japanese information and telecommunications services industry to competition. Since then, the Government has taken various measures to promote competition in the Japanese telecommunications market. As a result, NTT Group faces increasing competition in many of its business sectors from new companies that have entered or are about to enter the market.

NTT and certain of its subsidiaries are subject to regulations that affect their business under the NTT Act, the Radio Act, and the Telecommunications Business Act. A summary of these regulations is provided below.

1. *Telecommunications Business Act (Act No. 86 of 1984)*

Regulations under Telecommunications Business Act are as follows:

(a) Regulations applicable to all telecommunications companies

a. Business Commencement/Termination

- Registration with the Minister regarding the commencement of telecommunications business (Article 9)
However, where the scale of the telecommunications circuit facilities which are to be installed and the scope of the area covered thereby do not exceed certain thresholds or fall within a certain category of radio facilities, only a notice to the Minister is required (Article 16).
- Update of registration in the event of a merger, stock acquisition or other similar transaction (Article 12(2)).
- Notification to the Minister as well as their service subscribers if telecommunications companies suspend or discontinue their telecommunications business (Article 18).

b. Setting of Subscriber Rates and Other Terms of Service

- Notification to the Minister of the terms of the basic telecommunications services they provide (Article 19).
Telecommunications businesses that provide basic telecommunications services are required to provide fee-related and other contractual terms and conditions related to those services to the MIC.
- Regulations relating to consumer protection
Telecommunications companies are imposed consumer protection, including provisions on pre-contract accountability (Article 26), document delivery obligations (Article 26(2)), systems for the termination of initial contracts (Article 26 (3)), obligations to handle complaints and inquiries (Article 27), prohibitions on misstatements or on excessive solicitation (Article 27(2)), and measures applicable to business agents, such as trustees (Article 27(3)), among other provisions.

(Note) Ministry of Internal Affairs and Communications (the "MIC Ordinance") requires basic telecommunications services to be provided across Japan because they are regarded as essential to the lives of people in Japan. These are known as "universal services." These services include telephone subscriber lines (base rates) or optical IP telephones equivalent to telephone subscriber lines, Type 1 Public Telephones (public telephones installed pursuant to the MIC standards) and emergency numbers (110, 118, 119).

c. Interconnection

- Regulations promulgated under the Telecommunications Business Act require businesses in the telecommunications sector to respond to the requests of other telecommunications carriers regarding the connection of telecommunications circuit facilities (Article 32).

d. Universal Service Fund ("USF")

The USF is a system under which telecommunications carriers cover the costs and expenses necessary to provide universal services. In order to ensure the provision of universal services, the Minister designates a support organization to provide funds to cover a portion of such costs and expenses (Article 107). Grants are made to eligible telecommunications carriers (Article 108) that provide universal services, including in unprofitable regions. In connection with this system, each telecommunications carrier is obligated to make the appropriate amount of payments to cover the costs and expenses requested by the support organization (Article 110). The designated support organization began providing services in 2006 in response to the MIC Ordinance being amended in April 2006 to determine the services applicable to the USF and to set the calculation method of grants and contributions.

Under the NTT Act, NTT East and NTT West became responsible for providing universal services and were designated as eligible telecommunications carriers by the Minister. In the fiscal year ended March 31, 2019, the aggregate amount of compensation to NTT East and NTT West in connection with the USF was ¥6.5 billion, and in the fiscal year ending March 31, 2020, the aggregate amount of compensation to NTT East and NTT West is expected to be ¥6.5 billion.

(b) Regulations Imposed Only on NTT East and NTT West

a. Rates and Other Terms of Service

- Regulations promulgated under the Telecommunications Business Act require NTT East and NTT West to notify the Minister of the terms and conditions of their rate warranty agreements for designated telecommunications services (Article 20). These regulations also require that rates and other terms of service for designated telecommunications services provided by Category I designated telecommunications facilities be established and submitted to the Minister.
- The Telecommunications Business Act also provides for the regulation of rates for specified telecommunications services (Article 21) and for price cap regulations. The regulations promulgated under the Telecommunications Business Act require that the Minister be notified whenever the service rates of a business are at or below the standard price index specified by the Minister, and approval of the Minister is required when a business proposes to increase rates above the standard price index.

(Note)

- “Category I designated telecommunications facilities” comprise fixed terminal transmission line facilities installed by a telecommunications carrier where the facilities that have been installed by such carrier in a prefecture represent one-half or more of the total number of such facilities in the prefecture, and other ancillary facilities installed together with these facilities whose connection with other telecommunications carriers is essential for improving convenience to subscribers, and for the comprehensive and reasonable development of telecommunications services (designated by the Minister). The main telecommunications facilities of NTT East and NTT West have been designated as Category I designated telecommunications facilities.
- “Designated telecommunications services” are services that are provided by a telecommunications business using a Category I designated telecommunications facility established by such telecommunications business, and that have been designated as services for which “it is particularly necessary to protect the interests of customers by ensuring that the rates and other terms of service are fair and appropriate.” The determination of what constitutes a designated telecommunications service is based on a consideration of various factors, including whether alternative services are being adequately provided by other telecommunications carriers. Specifically, this refers to telephone subscriber line services, ISDN, public telephones, dedicated services, FLET’S Hikari, Hikari Denwa and other services, but excludes services providing supplementary functions that have minimal beneficial impact on subscribers.
- “Specified telecommunications services” are designated telecommunications services or services specified in the MIC Ordinance as having a significant beneficial impact on subscribers. Specifically, this refers to telephone subscriber services, ISDN and public telephone services provided by NTT East and NTT West.
- “Standard price index” refers to an index published by the Minister that shows the standard charges for each type of designated telecommunications service taking into consideration the appropriate costs and commodity prices to support efficient management.
- “Price cap regulation” is a system that sets maximum limits on rates. As the actual charge indexes for NTT East and NTT West are below the level of the standard charge index applicable to the one-year period beginning on October 1, 2018, no price adjustments pursuant to the price cap regulation have been made.

b. Interconnection

- Regulations promulgated under the Telecommunications Business Act require NTT East and NTT West to obtain approval of all interconnection agreements from the Minister as holders of Category I designated telecommunications facilities (Article 33). The Minister’s approval is subject, among other things, to the condition that the interconnection rates be fair and proper according to the method stipulated in the MIC Ordinance for computing proper costs under efficient management. NTT East’s and NTT West’s respective interconnection agreements establish their interconnection rates and conditions for interconnection.

(Telephone Line Interconnection Charges)

In May 1998, in a joint status report on deregulation and competition policy issued by the governments of Japan and the United States, the Government stated its intention to introduce a Long-Run Incremental Cost (“LRIC”) Methodology. In May 2000, the Telecommunications Business Act was amended to include the introduction of an LRIC Methodology, which has since then brought about decreases in interconnection charges. As communication traffic declined significantly, in order to avoid an increase in communication rates through the increase of interconnection charges, it was decided that Non-Traffic Sensitive (“NTS”) costs (costs which do not vary according to the volume of communication traffic) would be removed from interconnection rate costs and be recovered instead through base rates (October 2004 report of the Telecommunications Council). In addition, with respect to a portion of NTS costs, when the USF was reviewed from the standpoint of restricting cost increases for users, it was decided that the cost burden resulting from narrowing the scope of USF subsidies would not be borne only by NTT East and NTT West, but would also be recovered in a fair and equitable manner from other carriers, and that a portion of NTS costs would therefore be reintroduced as interconnection rate costs.

The Telecommunications Council of 2018 determined, as a result of a review, that it would continue to apply the LRIC Methodology for interconnection charges for the period from the fiscal year ending March 31, 2020 until the fiscal year ending March 31, 2022.

(Optical Fiber Line Interconnection Charges)

NTT East and NTT West are obligated to lease their optical fiber to other carriers at regulated rates (referred to as “optical fiber interconnection charges”) because the optical fiber owned by NTT East and NTT West qualifies as Category I designated telecommunications facilities under the Telecommunications Business Act.

In order to maintain low barriers to entry by other carriers through the lowering of interconnection charges, NTT East and NTT West have employed a future cost method that designates the four-year period from the start of the fiscal year ended March 31, 2017 to the end of the fiscal year ending March 31, 2020 as the computation period in order to calculate subscriber optical fiber interconnection charges. For these interconnection charges, NTT Group has introduced a cost difference adjustment system under which adjustments are made by adding the difference between the actual revenue from interconnection charges and the actual cost of interconnection charges for the following year and future years, which NTT believes will eliminate the risk of unrecoverable amounts.

The Information and Communications Council and Postal Services Council conducted an evaluation of the issue of setting per-unit interconnection charges for optical bifurcated lines in the passive optical network (Gigabit Ethernet-Passive Optical Network, or “GE-PON”) and determined that there remained issues that needed to be resolved (March 2012 report by the Information and Communications Council and Postal Services Council). To date, the Information and Communications Council has not set per-unit interconnection charges for optical bifurcated lines.

Regulations promulgated under the Telecommunications Business Act require NTT East and NTT West to notify the Minister of:

- (i) plans related to the functions of Category I designated telecommunications facilities, including any changes or additions to such functions (Article 36),
- (ii) any agreement to share Category I designated telecommunications facilities with other telecommunications carriers (Article 37), and,
- (iii) in the event that any wholesale telecommunications provision business utilizing Category I designated telecommunications facilities is started, modified, or terminated, NTT East and NTT West are required to notify the

Minister of such start, modification, or termination, as well as the type of wholesale service, the fee applicable to certain wholesale businesses that meet certain conditions, and other information (Article 38 (2)). Further, there are regulations governing the organization and publication of information furnished to or obtained by the Minister (Article 39 (2)).

c. Prohibited Activities

NTT East and NTT West, as dominant businesses in the fixed voice and IP/packet communications markets, are prohibited from using interconnection information for other than its intended purposes and from giving unfair preferential treatment to any particular telecommunications carrier (Article 30). Officers of NTT East and NTT West are also prohibited from holding concurrent officer positions at NTT Communications, which was designated by the Minister as a specified relevant carrier (Article 31). NTT East and NTT West are required to carry out necessary and proper monitoring of the subsidiaries to which they outsource services to ensure that such subsidiaries do not participate in prohibited activities, and are also obligated to appropriately manage information relating to interconnection services and to establish an appropriate system to monitor the implementation status of interconnection services (Article 31). Accordingly, NTT Group's ability to provide services exclusively in collaboration with telecommunications carriers within NTT Group is limited by these regulations. NTT intends to provide services in response to market needs while ensuring that all requirements for fair competition, including the regulations with respect to prohibited activities, are satisfied. However, these regulations may, for example, impede the timely provision of new services by NTT Group or have other adverse effects.

(c) Regulations Imposed on NTT DOCOMO

a. Interconnection

- Regulations promulgated under the Telecommunications Business Act require NTT DOCOMO to submit to the Minister for approval any interconnection agreements relating to connection with Category II designated telecommunications facilities (Article 34).

NTT DOCOMO's main telecommunications facilities for mobile phones were designated by the Minister as Category II designated telecommunications facilities requiring a reliable connection with other telecommunications businesses. NTT DOCOMO is required to establish its interconnection rates and terms of interconnection in its interconnection agreements and to submit them to the Minister.

- In the event that any wholesale telecommunications provision business utilizing Category II designated telecommunications facilities is started, modified, or terminated, regulations promulgated under the Telecommunications Business Act require NTT DOCOMO to notify the Minister of such start, modification, or termination, as well as the type of wholesale service, the fee applicable to certain wholesale businesses that meet certain conditions, and other information (Article 38(2)). Further, there are regulations governing the organization and publication of information furnished to or obtained by the Minister (Article 39(2)).

Regulations related to Category II designated telecommunications facilities are applicable to all telecommunications companies who install Category II designated telecommunications equipment, including but not limited to NTT DOCOMO.

c. Prohibited Activities

NTT DOCOMO, as a dominant business in the mobile communications market, is prohibited from using interconnection information for other than its intended purposes and from giving unfair preferential treatment to other NTT Group companies as designated by the Minister (Article 30).

(Note)

"Category II designated telecommunications facilities" consist of (a) transmission line facilities connected to mobile phones installed by telecommunications businesses which (i) are installed by the same telecommunications businesses, and (ii) represent ten percent or more of the total number of transmission line facilities in the entire service area, and (b)

telecommunications facilities which were installed specifically to provide such telecommunications services for reliable connection with other telecommunications businesses designated by the Minister.

(d) Future Developments

In January 2019, the “Study Group on the Competitive Environment in the Mobile Market” and “Working Group on the Verification of Consumer Protection Rules of the ICT Service Safety and Safety Research Committee” of the Ministry of Internal Affairs and Communications announced their “Urgent Proposal for the Optimization of Mobile Services and Other Matters.” Based on this announcement, in order to promote competition in the mobile market and protect user interests in response to changes in the telecommunications market environment, a bill to amend the Telecommunications Business Act has been enacted to introduce a system that will make changes such as the remediation of excessive containment restrictions, including term restraints or the complete separation of communication charges and device charges, and will take effect from the date specified by cabinet order.

The regulatory decisions made by the government and governmental agencies, and the resulting changes in the telecommunications industry’s business environment, may affect the NTT Group’s business results and financial condition.

2. NTT Act (Act No. 85 of 1984)

(a) Overview

The Supplementary Provisions of the Act to Amend the Nippon Telegraph and Telephone Company Act were promulgated in June 1997 and came into effect in July 1999. As a result, the Nippon Telegraph and Telephone Company Act was re-titled the “Act on Nippon Telegraph and Telephone Corporation, etc.” and NTT was reorganized as a holding company. This Act has been revised by the Act to Amend the Telecommunications Business Act, which was promulgated in June 2001 and took effect in November 2001, and by other subsequent amendments.

1. Purpose

- a. The NTT Act requires NTT to own all of the shares issued by NTT East and NTT West, to ensure appropriate and reliable provision of telecommunications services by these companies, and to engage in research activities relating to telecommunications technologies that form the foundation for telecommunications in Japan.
- b. The NTT Act also requires NTT East and NTT West to manage regional telecommunications businesses as joint-stock companies.

2. Business Activities

- a. The NTT Act requires NTT to engage in the following business activities:
 - (i) subscribing for and holding the shares issued by NTT East and NTT West and exercising rights as a shareholder of such shares;
 - (ii) providing necessary advice, assistance and other related support to NTT East and NTT West;
 - (iii) engaging in research activities relating to telecommunications technologies that form the foundation for telecommunications; and
 - (iv) engaging in business activities incidental to the business activities set forth in (i), (ii) and (iii) above.
- b. In addition to these business activities, the NTT Act provides that NTT may engage in actions necessary to complete such business activities after notifying the Minister.

c. The NTT Act requires that NTT East and NTT West engage

(i) in regional telecommunications business activities (activities conducted by establishing telecommunications facilities without using the facilities of other telecommunications business carriers) in prefectures in the following regions:

A. for NTT East: Hokkaido Prefecture, Aomori Prefecture, Iwate Prefecture, Miyagi Prefecture, Akita Prefecture, Yamagata Prefecture, Fukushima Prefecture, Ibaraki Prefecture, Tochigi Prefecture, Gunma Prefecture, Saitama Prefecture, Chiba Prefecture, Tokyo, Kanagawa Prefecture, Niigata Prefecture, Yamanashi Prefecture and Nagano Prefecture; and

B. for NTT West: Kyoto Prefecture, Osaka Prefecture and all other prefectures not listed above.

(ii) in business activities incidental to those set forth above.

d. Upon notification to the Minister, the NTT Act permits NTT East and NTT West to engage

(i) in business activities necessary to achieve their respective purposes and

(ii) in regional telecommunications business activities in any region or prefecture not otherwise designated.

e. In addition, upon notification to the Minister, NTT East and NTT West may engage in telecommunications businesses and other business activities utilizing their equipment, technology or employees, to the extent that there is no interference with the smooth implementation of their regional telecommunications business activities and the maintenance of fair competition in regional telecommunications business activities.

3. Responsibilities

Pursuant to the NTT Act and the regulations promulgated thereunder, the management of NTT, NTT East and NTT West are required to give consideration to each company's contribution to securing the appropriate, fair, and reliable provision of telephone services throughout Japan that are indispensable to civil life, and to the innovative and advanced development of telecommunications in Japan through the promotion of research relating to telecommunications technologies and the dissemination of the results thereof. The NTT Act also requires that each company promote public welfare, in view of the important role that telecommunications services play in contributing to societal and economic development.

(b) Matters Requiring the Approval of the Minister

The NTT Act requires that the Minister approve the following actions of NTT, NTT East or NTT West, as applicable:

- Issuing new shares or bonds with share acquisition rights (Articles 4 and 5). Under the NTT Act, NTT may issue new shares upon notification to the Minister, and may continue to do so until the number of issued shares reaches a certain threshold specified in the applicable ministerial ordinance of the MIC, even if approval is not obtained (Supplementary Provisions, Article 14).
- Adopting resolutions on the appointment or dismissal of corporate directors or corporate auditors of NTT (Article 10). Under the NTT Act, non-Japanese citizens cannot be appointed as corporate directors or corporate auditors of NTT, NTT East or NTT West.
- Adopting resolutions to change the respective articles of incorporation of NTT, NTT East or NTT West, to merge or dissolve each company, or to appropriate any surplus (Article 11).

- Changing the business operation plans of NTT, NTT East or NTT West (Article 12).
- Transferring or mortgaging any significant telecommunications facilities of NTT East or NTT West (Article 14).

(c) Other Obligations to the Minister

In addition to the foregoing, the NTT Act imposes several additional duties on NTT, NTT East and NTT West, including:

- (i) a duty to submit balance sheets, profit and loss accounts and business reports to the Minister (Article 13);
- (ii) a duty to abide by orders issued by the Minister (Article 16); and
- (iii) a duty to comply with requests to submit reports on business activities (Article 17).

3. Radio Act (Act No. 131 of 1950)

- (a) Under the Radio Act, any establishment of a radio station requires a license from the Minister (Article 4) and
- (b) changes to the purpose of the radio station, intended audience and topics of communication require approval from the Minister (Article 17).

(Spectrum Band Allocation for Mobile Communication Businesses)

Mobile communications businesses are required to have a license from the MIC to use radio frequency spectrum. Spectrum band allocations are governed by the Radio Act and related statutes and regulations.

(2) Matters Relating to NTT's Shares

1. Restrictions on the Ratio of Foreign Ownership of the Voting Rights of NTT's Shares (Article 6 of the NTT Act)

If the ratio of foreign ownership of voting rights to the total voting rights of NTT's Shares would equal or exceed one-third, NTT is prohibited from recording the names and addresses of such foreign owners on its shareholder registry and registering such foreign ownership.

(Note) "Foreign ownership" refers to:

- (1) any person who is not of Japanese nationality;
- (2) any foreign government or any of its representatives;
- (3) any foreign juridical person or association; or
- (4) any juridical person or association whose voting rights are directly owned by entities listed in clauses (1) through (3) above in a ratio equal to or exceeding the ratio specified in the applicable ministerial ordinance of the MIC.

NTT's Articles of Incorporation provide that NTT may distribute dividends to its shareholders or registered pledgees of shares entered or recorded on the register of shareholders and shareholders or pledgees of shares for whom all or part of their shares were not entered or recorded in the register of shareholders pursuant to Article 6 of the NTT Act.

2. Government Ownership and of NTT Shares (Article 4 of the NTT Act)

The NTT Act requires the Government, at all times, to own one-third or more of the total number of issued Shares of NTT.

(Note)

The NTT Act sets forth special provisions regarding the method for calculating the total number of issued Shares of NTT for this purpose (NTT Act, Supplementary Provisions, Article 13), including: (i) if Shares are issued through new Share issuances or the exercise of stock acquisition rights, or in exchange for the acquisition of shares subject to call or put options, the increase in the number of Shares as a result thereof ("Shares Not to be Included in Calculation") will not be included in the total number of issued Shares; and (ii) if there is a stock split or combination of Shares after the increase in Shares described in clause (i), the number obtained by multiplying the ratio of the stock split or the combination of Shares (if there is a stock split or combination of Shares in two or more stages, the ratio is equal to the product of the ratios for all stages) with the Shares Not to be Included in Calculation would not be included in the total number of issued Shares.

As of March 31, 2019, the total number of issued Shares of NTT was 1,950,394,470, of which the Government owned 679,121,128 Shares or 35.42% of outstanding Shares, excluding treasury stock.

(Note)

In December 2000, NTT issued 300,000 new Shares (equal to 60 million Shares after a 100-for-1 stock split in on January 4, 2009 and a 2-for-1 stock split on July 1, 2015) in a public offering. These Shares are not included in the total number of issued Shares when calculating the percentage of Government-owned Shares. The total number of Government-owned Shares includes Shares which are unregistered because of a failure in the transfer of title, and such Shares are therefore not actually owned by the Government. These Shares are nominally owned by the Government but are excluded from the total number of Shares owned by the Government when calculating the percentage of Government-owned Shares. If these conditions are taken into account, the percentage of Government-owned Shares is 35.91%.

NTT Group's transactions with Government divisions and agencies are arm's-length transactions, with the relevant division or agency acting as an individual customer. In its capacity as a shareholder, the Government is entitled to exercise voting rights at NTT general shareholders meetings, and as the largest shareholder, theoretically has the power to have a material impact on a large majority of shareholder meeting resolutions. However, the Government historically has not exercised this authority and has not been directly involved in NTT's management.

3. Government Dispositions of NTT Shares

The NTT Act requires that any disposition of the Government's NTT's Shares must be within the limits determined by the Diet in the relevant annual budget (NTT Act, Article 7).

Background of Sales and Sale Policy

NTT was established with 15.6 million issued Shares; of the 10.4 million Shares that the Government was allowed to sell (the numbers of Shares held less the 5.2 million Shares representing the one-third of issued Shares that the Government was obligated to hold), the Government sold 5.4 million Shares from 1986 to 1988.

In addition, on December 17, 1990, the Ministry of Finance promulgated a sale policy under which, with respect to the 5.0 million Shares that remained unsold at that point: (a) 2.5 million Shares would systematically be sold at an approximate rate of 500,000 Shares per year; (b) if in later years the market environment allowed it, such sales would be carried out earlier than scheduled; and (c) sales of the remaining 2.5 million Shares would be frozen for a period of time. (However, until the fiscal year ended March 31, 1998, no sales were actually carried out, due to the market environment and other factors.)

For the fiscal year ended March 31, 1999, the Government sold one million Shares in December 1998.

For the fiscal year ended March 31, 2000, the Government designated one million Shares as the maximum number of Shares that it would sell; of these, NTT repurchased 48,000 Shares as treasury stock, and the Government sold the remaining 952,000 Shares in November 1999. The above sale policy announced in December 1990 has expired.

For the fiscal year ended March 31, 2001, the Government sold one million Shares in November 2000.

For the fiscal year ended March 31, 2003, the Government designated one million Shares as the maximum number of Shares that it would sell; of these, NTT repurchased 91,800 Shares as treasury stock on October 8, 2002.

For the fiscal year ended March 31, 2004, the Government designated one million Shares as the maximum number of Shares that it would sell; of these, NTT repurchased 85,157 Shares as treasury stock on October 15, 2003.

For the fiscal year ended March 31, 2005, the Government designated one million Shares as the maximum number of Shares that it would sell; of these, NTT repurchased 800,000 Shares as treasury stock on November 26, 2004.

For the fiscal year ended March 31, 2006, the Government designated 1,123,043 Shares as the maximum number of Shares that it would sell; NTT repurchased all 1,123,043 Shares as treasury stock on September 6, 2005.

For the fiscal year ended March 31, 2012, the Government designated 99,334,255 Shares as the maximum number of Shares that it would sell; of these, NTT repurchased 57,513,600 Shares as treasury stock on July 5, 2011 and an additional 41,820,600 Shares as treasury stock on February 8, 2012.

For the fiscal year ended March 31, 2014, the Government designated 62,166,721 Shares as the maximum number of Shares that it would sell; of these, NTT repurchased 26,010,000 Shares as treasury stock on March 7, 2014.

For the fiscal year ended March 31, 2015, the Government designated 36,156,721 Shares as the maximum number of Shares that it would sell; of these, NTT repurchased 35,088,600 Shares as treasury stock on November 14, 2014 and an additional 1,068,100 Shares as treasury stock on November 28, 2014.

For the fiscal year ended March 31, 2017, the Government designated 59,000,043 Shares as the maximum number of Shares that it would sell; of these, NTT repurchased 59,000,000 Shares as treasury stock on June 14, 2016.

3. Management's Analysis of Financial Condition, Results of Operations and Cash Flows

Summary of Results of Operations

Forward-looking statements included herein are made as of the date of the filing of this Annual Securities Report.

(1) Results of Operations

In the fiscal year ended March 31, 2019, the information and telecommunications market saw increased usage of a variety of digital services as a result of rapid advances in such areas as cloud services, IoT, big data and AI. The analysis and utilization (data management) of data accumulated through the use of such services are driving a global digital transformation resulting in reforms that will further take in a positive direction, such as by improving the convenience of people's daily lives, creating new business models and enhancing productivity. In addition, it is becoming increasingly necessary to take steps such as strengthening information security against increasingly sophisticated and complex cyberattacks, reinforcing anti-disaster measures, and contributing to the protection of the global environment.

The role of information and telecommunications is becoming more important in terms of resolving these wide-ranging social issues.

In light of these circumstances, NTT Group formulated and announced its new "Your Value Partner 2025" Medium-Term Management Strategy in November 2018, with the aim of working together with all our partners to promote initiatives to resolve social issues in its role as "Your Value Partner."

Supporting our Customers' Digital Transformations

NTT Group has proceeded with initiatives including the promotion of the B2B2X model to support the creation of new value, initiatives to implement and launch 5G services, and increasingly personalized services to support lifestyle changes, among other efforts.

- In terms of supporting the creation of new value, NTT Group signed an agreement for comprehensive collaboration for realizing a super-smart society by utilizing public and private data with the city of Yokohama in Kanagawa Prefecture and Yokohama City University, and has begun initiatives to enhance the daily lives of City residents. In addition, NTT Group worked with Dell Technologies Inc. in the city of Las Vegas to conduct proof of concept testing for implementing public safety solutions by providing quick responses to accidents and incidents and predictive measures using AI. Furthermore, NTT Group concluded a capital and business alliance agreement with Netyear Group Corporation for the purpose of strengthening support for digital marketing. The B2B2X Strategy Committee has been established within NTT so as to expand these projects in cooperation with other members of the Group with the aim of further promoting this kind of B2B2X model.
- In the "DOCOMO 5G Open Partner Program," with a wide range of partners, NTT DOCOMO expanded initiatives aimed at creating new use cases for the implementation and launch of 5G services. Moreover, in outdoor trials of 5G, NTT DOCOMO achieved a world first by reaching a communication speed of 27Gbps, exceeding the 20Gbps communication speed to mobile devices required for 5G, in addition to advancing other initiatives related to the use of 5G in a wide range of environments.
- In order to promote the personalization of services and in response to diversifying customer lifestyles, it was decided that NTT DOCOMO would make NTT Plala its subsidiary as an effort to strengthen its video content business. In addition, NTT Plala took an equity stake in EAST GROUP HOLDINGS INC., a major program production company, with the aim of improving its proprietary content. In addition, NTT DOCOMO launched the "Basic Share pack" and "Basic pack," which are intended for the convenience of customers with low data usage, and the "Welcome Sumaho Wari" for customers who switch from feature phones to smartphones for the first time. The number of subscriptions to the "docomo with" discounted billing plan, which is for customers who use one device over a long period of time, exceeded 5 million.
- Due to the impact of the workstyle reforms trending recently, more than 3,000 companies have now introduced the "WinActor®" RPA tool provided by NTT Group.

Accelerating Our Own Digital Transformation

NTT Group advanced initiatives such as the “One NTT” global growth strategy to enhance the competitiveness of its global business and digital transformation of its domestic business.

- In order to enhance the competitiveness of our global business, we newly established a global holding company under NTT (company name: NTT, Inc.), and transferred control of NTT Communications, Dimension Data, NTT Security, and NTT Data to this holding company. In order to accelerate investment activity, primarily into areas of technology for which the global market is expected to grow, a global innovation fund (company name: NTT Venture Capital, L.P.) has also been established. Furthermore, NTT has established a new company specializing in procurement in the United States (company name: NTT Global Sourcing, Inc.) for hardware, software and services purchased jointly by Group companies in order to centralize price negotiations and enter into comprehensive agreements with manufacturers and vendors around the globe. NTT, NTT East and NTT West are not covered by this procurement initiative.
- To enable NTT, NTT DOCOMO, NTT East, NTT West and NTT Communications to move forward with their own digital transformation, Chief Digital Officers (CDO) have been appointed in each company so as to further improve business process efficiency and provide new value-added services. The CDO of each company will be responsible for formulating and promoting a digital strategy to deal quickly and flexibly with a variety of changes in the business environment, such as the introduction of 5G and the PSTN migration. NTT Data had already assigned an operating officer to drive its digital strategy before the beginning of the fiscal year under review.
- NTT Communications promoted the digital transformation of contact centers through the creation of new points of contact with customers via live chat and AI-driven automatic chatbots with 24-hour-a-day availability, and introduced operator support systems that use voice recognition and analysis technology, causing chatbased inquiries at its contact center (Nagoya City, Aichi Prefecture) to increase by around 4.5 times. These moves have been well received in the industry, resulting in NTT Communications winning the “Best Technology Category Prize” at the Contact Center Awards 2018.

Leveraging Talent, Technologies and Assets

NTT Group also worked on initiatives to create new businesses including utilization of real estate and the supply of energy, and to revitalize local communities and regional economies.

- NTT Group is promoting a new urban solutions business that goes beyond conventional real estate development by leveraging its strengths in real estate, ICT, energy and environmental technology and other fields to the fullest extent. Specifically, as a way of strengthening the structure to facilitate group-wide initiatives, preparations are under way to establish an urban solutions business promotion company (company name: NTT Urban Solutions, Inc.), including such measures as making NTT Urban Development, which plays a central role in the real estate business in the NTT Group, a wholly owned subsidiary through a tender offer.
- NTT created collaborative business operations to respond to societal demands for the promotion of energy conservation and decarbonization, and for energy supplies that are resistant to natural disasters, and also established a joint venture with Tokyo Electric Power Company Holdings, Inc. called TNcross Corporation with the aim of driving business development that is responsive to changes in markets and society. As a specific example of these measures, NTT Group has entered into an agreement with the city of Chiba in Chiba Prefecture relating to the testing of new energy solutions, with the goals of stabilizing residents’ daily lives as quickly as possible in times of natural disaster and of enhancing residential services in normal times.

Promoting ESG Management and Enhancing the Returns of Shareholders to Improve Corporate Value

NTT Group considers the continuous enhancement of corporate value and the return of profits to shareholders to be important management issues, and is working to reduce its environmental impact, leverage diverse human resources, reinforce information security, and enhance the returns of shareholders.

- In terms of environmental initiatives, NTT is the first telecommunications operator worldwide to become a member of the “EP100” and “EV100” global initiatives operated by The Climate Group, an international NPO. We have worked to

promote the introduction of high-efficiency DC power equipment, energy-saving in communications equipment, and EV conversions to reduce NTT's environment impact and its vehicle ownership costs

- As part of our cybersecurity initiatives, NTT participates in the Council to Secure the Digital Economy (CSDE), an international body established to work for the safety and security of the digital economy, and publishes the International AntiBotnet Guide, and contributed to the domestic rollout of this publication through ICT-ISAC Japan. Furthermore, to protect users of ICT and to improve the safety, stability and resilience of virtual space, NTT has endorsed the “Cybersecurity Tech Accord,” a shared commitment by more than 80 companies that underpin global communications and IT.
- Recognizing diversity management as a key part of our management strategy, NTT Group has striven to ensure that diverse personnel can demonstrate their talents. In terms of initiatives aimed at sexual minorities such as LGBT persons, NTT Group has extended overall systems relating to spouses and families, such as various allowances and benefits, to apply to same-sex partners. In addition, NTT Group is actively promoting diverse work styles by the use of working-from-home systems and other teleworking systems as well as flextime systems as an ICT provider. NTT Group participated in the Telework Days event that took place in July 2018. During this event, more than 15 thousand NTT Group employees took part in the flexible work styles.
- In recognition of the wide range of initiatives NTT has implemented for sustained improvements in corporate value, NTT was selected for inclusion in the Dow Jones Sustainability World Index (DJSI World), a leading global index of ESG investment, for the first time. NTT has also been selected for the Asia Pacific Index, a component index of the Asia Pacific area, for the fifth consecutive year.
- In terms of the returns of shareholders, NTT paid dividends and implemented share buybacks.

As a result of the initiatives described above, results of operations for the fiscal year ended March 31, 2019 were as follows.

	Year Ended March 31,		Change	Percent Change
	2018	2019		
	(in billions of yen)			
Operating revenues	11,782.1	11,879.8	97.7	0.8 %
Fixed voice related services	1,146.9	1,077.7	(69.2)	(6.0) %
Mobile voice related services	933.3	946.7	13.5	1.4 %
IP/Packet communications services	3,757.4	3,721.2	(36.2)	(1.0) %
Sales of telecommunications equipment	878.3	929.2	50.9	5.8 %
System integration	3,457.4	3,594.1	136.7	4.0 %
Other	1,608.9	1,611.0	2.1	0.1 %
Operating expenses	10,141.1	10,186.0	44.9	0.4 %
Operating profit	1,641.1	1,693.8	52.7	3.2 %
Finance income and costs	(53.2)	(11.9)	41.3	77.6 %
Income from arbitration award	147.6	—	(147.6)	—
Share of profit (loss) of entities accounted for using equity method	5.0	(10.1)	(15.0)	— %
Profit before taxes	1,740.5	1,671.9	(68.6)	(3.9) %
Income taxes	533.8	533.2	(0.6)	(0.1) %
Profit	1,206.7	1,138.7	(68.0)	(5.6) %
Less—profit attributable to non-controlling interests	308.8	284.1	(24.7)	(8.0) %
Profit attributable to NTT	897.9	854.6	(43.3)	(4.8) %

Operating Revenues

NTT Group's operating revenues are divided into six service categories, comprising fixed voice related services, mobile voice related services, IP/packet communications services, sales of telecommunications equipment, system integration and other.

Operating revenues in the fiscal year ended March 31, 2019 increased 0.8% from the previous fiscal year to ¥11,879.8 billion. This increase was due to such factors as an increase in revenues in the data communications business segment, both domestically and overseas, and an increase in revenues from sales of telecommunications equipment and the expansion of “docomo hikari” in the mobile communications business segment.

Operating revenues for each service category for the fiscal year ended March 31, 2019 are summarized as follows:

Fixed Voice Related Services

NTT Group's fixed voice related services include a portion of the services it provides in the regional communications business segment and long distance and international communications business segment, such as telephone subscriber lines, INS-Net, conventional leased circuits and high speed digital.

Fixed voice related revenues for the fiscal year ended March 31, 2019 decreased 6.0% from the previous fiscal year to ¥1,077.7 billion, accounting for 9.1% of total operating revenues. This decrease was due to a continued decline in the number of subscriptions for telephone subscriber lines and INS-Net caused by the increased popularization of mobile phones and optical IP telephones, and an increase in free or low-priced communications services offered by OTT operators (content distribution services utilizing other companies' communications infrastructure, allowing a service provider to distribute services without owning its own communications infrastructure).

Mobile Voice Related Services

Mobile voice related services include a portion of the services NTT Group provides in the mobile communications business segment, such as LTE (Xi).

Mobile voice related revenues for the fiscal year ended March 31, 2019 increased 1.4% from the previous fiscal year to ¥946.7 billion, accounting for 8.0% of total operating revenues. This increase was due to, mainly to the revenue boosting effect associated with the reduction of “Monthly Support” discounts.

IP/Packet Communications Services

NTT Group’s IP/packet communications services include a portion of the services it provides in the regional communications business segment, such as FLET’S Hikari, a portion of the services it provides in the long distance and international communications business segment, such as Arcstar Universal One, IP-VPN, and OCN, as well as a portion of the services it provides in the mobile communications business segment, such as LTE (Xi) packet communications services.

In the fiscal year ended March 31, 2019, revenues from IP/packet communications services decreased 1.0% from the previous fiscal year to ¥3,721.2 billion, accounting for 31.3% of total operating revenues. This decrease was due to, among other things, the increased number of transfers to the Hikari Collaboration Model in the regional communications business segment and a decrease in revenues in the mobile communications business segment due to strengthened efforts to enhance returns to customers, despite the continued increase in the number of “docomo Hikari” subscriptions in the mobile communications business segment.

Sales of Telecommunications Equipment

This category includes a portion of the services NTT Group provides in the mobile communications business segment and the regional communications business segment.

In the fiscal year ended March 31, 2019, revenues from telecommunications equipment sales increased 5.8% from the previous fiscal year to ¥929.2 billion, accounting for 7.8% of total operating revenues. This increase was mainly due to an increase in equipment sales revenues as a result of higher smartphone prices in the mobile communications business segment.

System Integration

NTT Group’s system integration services include its data communications business segment and a portion of the services it provides in the long distance and international communications business segment and the regional communications business segment.

In the fiscal year ended March 31, 2019, revenues from system integration increased 4.0% from the previous fiscal year to ¥3,594.1 billion, accounting for 30.3% of total operating revenues. This increase was mainly due to factors such as the impact of the expansion of consolidated subsidiaries and the expanded scope of business in the data communications business segment.

Other

Other services principally comprise building maintenance, real estate rentals, systems development, leasing activities and the Smart Life area in the mobile communications business segment.

In the fiscal year ended March 31, 2019, revenues from other services increased 0.1% from the previous fiscal year to ¥1,611.0 billion, accounting for 13.6% of total operating revenues.

Operating Expenses

Operating expenses in the fiscal year ended March 31, 2019 increased 0.4% from the previous fiscal year to ¥10,186.0 billion. The reasons for the increase are discussed below. Personnel expenses and expenses for purchase of goods and services and other expenses, described below, are included in cost of services, cost of equipment sold, cost of system integration, and selling, general and administrative expenses in the consolidated statements of income.

Personnel Expenses

Personnel expenses in the fiscal year ended March 31, 2019 decreased 0.1% from the previous fiscal year to ¥2,391.6 billion. This decrease was mainly due to the increase in personnel expenses as a result of the effect of the expansion of consolidated subsidiaries in the data communications business segment, despite a decrease in personnel expenses due to employee retirements in the regional communications business segment.

Expenses for Purchase of Goods and Services and Other Expenses

In the fiscal year ended March 31, 2019, expenses for purchase of goods and services and other expenses increased 1.4% from the previous fiscal year to ¥5,917.7 billion. This increase was mainly due to the expanded scope of business in the data communications business segment and an increase in revenue-linked headset costs resulting from an increase in equipment sales in the mobile communications business segment.

Depreciation and Amortization Expenses

Depreciation and amortization expenses in the fiscal year ended March 31, 2019 decreased 1.0% from the previous fiscal year to ¥1,333.6 billion. This decrease was mainly due to the fact that the accelerated depreciation of prior-generation equipment that was recorded for the mobile communications business segment in the fiscal year ended March 31, 2018 was not recorded in the fiscal year ended March 31, 2019.

Operating Profit

As a result of the foregoing, operating profit for the fiscal year ended March 31, 2019 increased 3.2% from the previous fiscal year to ¥1,693.8 billion.

Finance Income and Costs

Finance income and costs for the fiscal year ended March 31, 2019 was ¥(11.9) billion compared to ¥(53.2) billion for the previous fiscal year.

Income from Arbitration Award

The arbitration awards received from Tata Sons Limited in the fiscal year ended March 31, 2018 did not occur in the fiscal year ended March 31, 2019.

Share of Profit (Loss) of Entities Accounted for Using Equity Method

Share of profit (loss) of entities accounted for using equity method for the fiscal year ended March 31, 2019 was ¥(10.1) billion compared to ¥5.0 billion for the previous fiscal year.

Profit before Taxes

As a result of the foregoing, profit before taxes for the fiscal year ended March 31, 2019 decreased 3.9% from the previous fiscal year to ¥1,671.9 billion.

Income Taxes

In the fiscal year ended March 31, 2019, income taxes decreased 0.1% from the previous fiscal year to ¥533.2 billion. Effective tax rates for the fiscal year ended March 31, 2018 and for the fiscal year ended March 31, 2019 were 30.67% and 31.89%.

Profit Attributable to NTT

As a result, profit for the fiscal year ended March 31, 2019 decreased 5.6% from the previous fiscal year to ¥1,138.7 billion. Profit attributable to NTT (excluding the profit attributable to non-controlling interests) for the fiscal year ended March 31, 2019 decreased 4.8% from the previous fiscal year to ¥854.6 billion.

(2) Segment Information

NTT Group has five business segments: mobile communications business, regional communications business, long distance and international communications business, data communications business and other business. (For further details, see Note 6 to the Consolidated Financial Statements.)

The mobile communications business segment comprises mobile voice related services, IP/packet communications services, sales of telecommunications equipment and other services.

The regional communications business segment comprises fixed voice related services, IP/packet communications services, sales of telecommunications equipment, system integration services and other services.

The long distance and international communications business segment principally comprises fixed voice related services, IP/packet communications services, system integration services and other services.

The data communications business segment comprises system integration services.

The other business segment principally comprises building maintenance, real estate rentals, systems development, leasing activities and other services related to research and development.

An overview of the operational results for each business segment is as follows (intersegment revenues are included in the operating revenues, operating expenses and operating income of operational results for each business segment). Because of the difficulty associated with presenting information classified as production or orders due to the fact that NTT Group is engaged in businesses such as the telecommunications business, NTT Group does not present segment production or order scale by amount or quantity. Accordingly, the summary of production, orders received and sales is presented in connection with operating results for each segment.

1. Mobile Communications Business Segment

In the mobile communications business segment, NTT Group worked to promote sales of the billing plans “docomo with” and “docomo Hikari” and also collaborated with various business partners in an effort to provide new value-added services in the smart life area.

Details of Main Initiatives

- NTT Group worked to expand the number of retail outlets using the new “d Pay” smartphone payment service, which uses barcodes and QR codes, and to increase the number of retail outlets utilizing “d POINTs” both in Japan and overseas. As a result, the number of “d POINT CLUB” subscribers reached 70.15 million, while the number of registered “d POINT CARD” came to 33.72 million.
- By increasing the number of booked appointments to stores, revising explanation methods, and strengthening NTT Group’s web presence, NTT Group made efforts to reduce customer waiting times and support times at docomo Shops.
- By establishing systems whereby the information obtained from smartphones is used by AI to show recommended insurance plans, NTT Group aims to drive an evolution from “insurance for mobile phones” to “insurance entrusted to mobile phones,” and to this end, NTT Group has come to an agreement with Tokio Marine & Nichido Fire Insurance Co., Ltd. to start studies on the “use of AI for insurance recommendation” and the “full digitization of insurance processes.”
- For customers who are hard of hearing, we have begun offering the Mieru Denwa (literally “visible telephone”), in which the content of the other party’s speech is shown as characters on a screen.
- In collaboration with AGC Inc., NTT Group became the first in the world to develop a glass antenna that can be fixed onto the inner surface of existing window glass to transmit and receive radio waves without disrupting screen visibility.

Summary of Segment Performance (April 1, 2018 to March 31, 2019)

	Fiscal Year Ended March 31,			
	2018	2019	Change	Percent Change
	(in billions of yen)			
Operating revenues	4,762.3	4,840.8	78.6	1.7 %
Mobile voice related services	942.8	956.2	13.4	1.4 %
IP/packet communications services	2,137.2	2,159.3	22.1	1.0 %
Sales of telecommunications equipment	789.8	844.4	54.6	6.9 %
Other	892.4	880.9	(11.5)	(1.3) %
Operating expenses	3,775.3	3,827.2	51.9	1.4 %
Operating profit	987.0	1,013.6	26.7	2.7 %

Operating revenues for the mobile communications business segment for the fiscal year ended March 31, 2019 increased to ¥4,840.8 billion (an increase of 1.7% from the previous fiscal year) due to, among other things, an increase in the IP/packet communications services revenues due to the number of subscriptions for “docomo Hikari,” along with an increase in revenues from the sales of telecommunications equipment due to higher smartphone prices. On the other hand, operating expenses for the fiscal year ended March 31, 2019 increased to ¥3,827.2 billion (an increase of 1.4% from the previous fiscal year) due to, among other things, cost reductions, despite an increase in revenue-linked expenses as a result of the expansion of NTT Group’s docomo Hikari business and an increase in the cost of telecommunications equipment related to revenues from equipment sales. As a result, operating profit increased to ¥1,013.6 billion (an increase of 2.7% from the previous fiscal year).

Number of Mobile Communications Subscriptions and Estimated Market Share

	As of March 31,			
	2018	2019	Change	Percent Change
	(in thousands)			
Mobile phone services ⁽¹⁾	76,370	78,453	2,083	2.7 %
(Included in the above) Kake-hodai & Pake-aeru	41,964	45,793	3,829	9.1 %
LTE (Xi) services	50,097	55,872	5,775	11.5 %
FOMA services	26,273	22,581	(3,692)	(14.1) %
Estimated mobile phone market share ⁽²⁾	45.3%	44.7%	(0.6)point	—
sp-mode services	38,998	41,797	2,799	7.2 %
i-mode services	12,111	9,098	(3,014)	(24.9) %

(1) Mobile phone services subscriptions, LTE (Xi) services subscriptions and FOMA services subscriptions include communications module service subscriptions

(2) Market share data is based on number of subscriptions of other carriers, which is computed based on figures released by the Telecommunications Carriers Association.

As of March 31, 2019, the number of subscriptions to NTT DOCOMO mobile phone services increased by 2.08 million, from 76.37 million at the end of the previous fiscal year to 78.45 million subscriptions. In addition, churn rates decreased by eight basis points to 0.57%.

ARPU and MOU of Mobile Phone Services

	As of March 31,			
	2018	2019	Change	Percent Change
Aggregate ARPU	4,710	4,800	90	1.9 %
Mobile ARPU	4,370	4,360	(10)	(0.2) %
“docomo hikari” ARPU	340	440	100	29.4 %
MOU (minutes)	136	134	(2)	(1.5) %

See “Footnote 1, ‘MOU (average monthly minutes of use per unit): Average communication time per subscription’” at the end of this item for a description of how MOU is calculated. See “Footnote 3, ‘Method of calculating ARPU-(b) NTT DOCOMO’” at the end of this item for a description of how ARPU is calculated for mobile phone services.

Aggregate ARPU of mobile phone services increased by ¥90 (1.9%) to ¥4,800 in the fiscal year ended March 31, 2019, from ¥4,710 in the fiscal year ended March 31, 2018. This increase was due to a decrease of ¥10 (0.2%) in Mobile ARPU to ¥4,360 in the fiscal year ended March 31, 2019, from ¥4,370 in the fiscal year ended March 31, 2018, despite strengthened efforts to enhance returns to customers, and an increase of ¥100 (29.4%) in “docomo hikari” ARPU to ¥440 in the fiscal year ended March 31, 2019, from ¥340 in the fiscal year ended March 31, 2018.

2. Regional Communications Business Segment

In the regional communications business segment, NTT Group worked on the “Hikari Collaboration Model,” which provides wholesale fiber-optic access services, among other things, to various service providers, as well as strengthening its solutions business with the aim of revitalizing local communities and regional economies.

- In the “Hikari Collaboration Model,” NTT Group has developed a business model whereby we provide social infrastructure operators with an integrated service for end users that includes electricity, gas and fiber-optic services, to be used when opportunities arise, such as when end users are relocating, thus increasing its collaborations with other industries. Through such initiatives, the number of service providers providing wholesale services was approximately 750 companies at the end of the fiscal year ended March 31, 2019, while under the same model, the number of subscriptions to fiber-optic access services came to 12.69 million.
- NTT Group has begun offering IoT packages for factories that enable the visualization of production sites. The adoption of such packages enables the accumulation of operating data from production machinery, the use of alerts to allow the early discovery of abnormal stoppages, and the use of network cameras to record images from the time at which abnormal stoppages occurred. By combining such packages with such efforts as revising operating processes and ensuring the generational hand-down of employee skills, NTT Group has achieved improved productivity at production sites, reductions in labor used and development of human resources.
- As a first step towards the realization of the “Regional Revitalization Clouds” concept, NTT Group has begun a collaboration with Microsoft Japan Co., Ltd. to deploy and develop cloud service platforms for local governments, with the aim of supporting local government-led industrial revitalization, generating employment and dealing with population aging, as well as delivering the improvements in work efficiency demanded by regional companies, which tend to struggle with labor shortages.
- In order to effectively encourage the use of the “Disaster Emergency Message Dial (171)” and “Disaster Emergency Bulletin Board (web171),” NTT Group has set up a trial usage period. In addition, during the training in countermeasures to assist those who are stranded as a result of natural disasters in Toshima-ku, Tokyo, NTT Group collaborated with Aquabit Spirals Inc. to offer a service that provides a simple display of emergency information in a person’s native language so that it can be shown to overseas visitors sheltering in hotels.

Summary of Segment Performance (April 1, 2018 to March 31, 2019)

	Fiscal Year Ended March 31,			
	2018	2019	Change	Percent Change
	(in billions of yen)			
Operating revenues	3,231.6	3,152.3	(79.2)	(2.5) %
Fixed voice related services	1,143.1	1,085.2	(57.9)	(5.1) %
IP/packet communications services	1,523.7	1,500.7	(23.0)	(1.5) %
Sales of telecommunications equipment	76.7	76.6	(0.1)	(0.1) %
System integration services	166.6	168.9	2.3	1.4 %
Other	321.4	320.9	(0.5)	(0.2) %
Operating expenses	2,880.0	2,791.6	(88.4)	(3.1) %
Operating profit	351.6	360.7	9.1	2.6 %

Operating revenues in the regional communications business segment for the fiscal year ended March 31, 2019 decreased to ¥3,152.3 billion (a decrease of 2.5% from the previous fiscal year) due to a decrease in revenues from fixed voice-related services, among other factors. On the other hand, operating expenses decreased to ¥2,791.6 billion in the fiscal year ended March 31, 2019 (a decrease of 3.1% from the previous fiscal year), as a result of a decrease in the scope of impairment losses recorded relating to metal cables and a decrease in personnel expenses due to employee retirements and other factors. As a result, segment operating profit in the fiscal year ended March 31, 2019 increased 2.6% to ¥360.7 billion.

Numbers of Fixed-Line Telephone and INS-Net Subscriptions

	As of March 31,		Change	Percent Change
	2018	2019		
	(in thousands)			
NTT East:				
Telephone subscriptions	8,707	8,119	(588)	(6.8) %
INS-Net subscriptions	1,188	1,086	(102)	(8.6) %
NTT West:				
Telephone subscriptions	8,832	8,244	(588)	(6.7) %
INS-Net subscriptions	1,143	1,052	(91)	(8.0) %

(1) Number of Telephone subscriptions is the total of individual lines and central station lines (including lines under the Subscriber Telephone Light Plan).

(2) INS-Net includes INS-Net 64 and INS-Net 1500. In terms of the number of channels, transmission rate, and line use rate (base rate), INS-Net 1500 is in all cases roughly ten times greater than INS-Net 64. For this reason, one INS-Net 1500 subscription is calculated as ten INS-Net 64 subscriptions (including INS-Net 64 Lite Plan subscriptions).

As a result of the shift in customer demand to mobile telephones, IP phones and broadband access services and to free or low-priced communications services offered by OTT operators, the aggregate number of fixed line subscriptions (fixed-line telephone & INS-Net) as of March 31, 2019 stood at 18,500 thousand, a decrease of 1,369 thousand from the previous fiscal year.

Numbers of Subscriptions for “FLET’S Hikari (including the Hikari Collaboration Model),” “FLET’S ADSL,” “Hikari Denwa,” and “FLET’S TV Transmission Service”

	As of March 31,		Change	Percent Change
	2018	2019		
	(in thousands)			
NTT East:				
FLET’S Hikari (including the Hikari Collaboration Model)	11,491	11,880	389	3.4 %
(incl.) Hikari Collaboration Model	6,602	7,470	868	13.1 %
FLET’S ADSL	342	258	(84)	(24.5) %
Hikari Denwa (channels)	9,558	9,759	201	2.1 %
FLET’S TV Transmission Service	992	1,033	41	4.1 %
NTT West:				
FLET’S Hikari (including the Hikari Collaboration Model)	9,041	9,197	156	1.7 %
(incl.) Hikari Collaboration Model	4,515	5,220	705	15.6 %
FLET’S ADSL	438	344	(94)	(21.4) %
Hikari Denwa (channels)	8,474	8,485	11	0.1 %
FLET’S TV Transmission Service	624	684	60	9.6 %

(1) FLET’S Hikari (including Hikari Collaboration Model) includes B FLET’S, FLET’S Hikari Next, FLET’S Hikari Light, FLET’S Hikari Lightplus and FLET’S Hikari WiFi Access provided by NTT East, B FLET’S, FLET’S Hikari Premium, FLET’S Hikari Mytown, FLET’S Hikari Next, FLET’S Hikari Mytown Next, FLET’S Hikari Light and FLET’S Hikari WiFi Access provided by NTT West, and the “Hikari Collaboration Model,” the wholesale provision of services by NTT East and NTT West to service providers.

(2) “Hikari Denwa” and “FLET’S TV Transmission Service” include wholesale services provided to service providers by NTT East and NTT West.

As a result of NTT’s initiatives to expand the Hikari Collaboration Model, as of March 31, 2019, the number of FLET’S Hikari subscriptions (including the Hikari Collaboration Model) had increased to 21,078 thousand lines, an increase of 545 thousand (2.7%) from the previous fiscal year; the number of Hikari Denwa subscriptions increased to 18,244 thousand channels, an increase of 212 thousand channels (1.2%) from the previous fiscal year; and the number of FLET’S TV

subscriptions increased to 1,716 thousand channels, an increase of 101 thousand channels (6.2%) from the previous fiscal year.

ARPU of Fixed Line Services and FLET'S Hikari Services

	As of March 31,		Change	Percent Change
	2018	2019		
NTT East:				
Aggregate Fixed Line ARPU (Telephone Subscriber Lines + INS-NET Subscriber Lines)	2,580	2,540	(40)	(1.6) %
FLET'S Hikari ARPU	5,080	4,910	(170)	(3.3) %
Basic Monthly Charge.....	3,630	3,520	(110)	(3.0) %
Optional Services.....	1,450	1,390	(60)	(4.1) %
NTT West:				
Aggregate Fixed Line ARPU (Telephone Subscriber Lines + INS-NET Subscriber Lines)	2,540	2,520	(20)	(0.8) %
FLET'S Hikari ARPU	5,100	4,930	(170)	(3.3) %
Basic Monthly Charge.....	3,500	3,380	(120)	(3.4) %
Optional Services.....	1,600	1,550	(50)	(3.1) %

See “-Footnote 2, ‘ARPU: Average monthly revenue per unit’” for a description of ARPU, and “Footnote 3, ‘Method of calculating ARPU-(a) NTT East and NTT West’” for a description of how aggregate fixed-line ARPU is calculated.

For the fiscal year ended March 31, 2019, aggregate fixed-line ARPU (telephone subscriber lines plus INS-Net subscriber lines) was ¥2,540 for NTT East and ¥2,520 for NTT West, a decrease of ¥40 (1.6%) and ¥20 (0.8%), respectively, from the corresponding figures in the previous fiscal year. This decline was due to, among other factors, the shift by high-volume users to IP telephone services and the migration of users from fixed-line services to mobile phone services.

FLET'S Hikari ARPU for the fiscal year ended March 31, 2019 for NTT East was ¥4,910, ¥170 (3.3%) lower than in the previous fiscal year. FLET'S Hikari ARPU for the fiscal year ended March 31, 2019 for NTT West was ¥4,930, ¥170 (3.3%) lower than in the previous fiscal year. These reductions were due to reduced earnings as a result of the progress of the Hikari Collaboration Model, among other factors.

3. Long Distance and International Communications Business Segment

In the Long Distance and International Communications Business Segment, in addition to enhancing our ability to provide ICT solutions, which combine network, security and other services, NTT Group worked to enhance our service provision in growth areas such as cloud services and IT outsourcing.

Details of Main Initiatives

- By combining chat AI, including the “COTOHA® Virtual Assistant” chat-based natural language analysis AI engine, with RPA such as “WinActor®,” NTT Group provided a “Contact Center DX Solution” that enables the automation of all processes from contact center responses to business processing, for significant increases in productivity. As a result, instead of the previous “person-centric” contact center response, NTT Group realized an environment in which “AI+RPA” provide the primary response and are able to complete all operations.
- In order to provide a comprehensive response to NTT Group customers’ security needs, NTT Group signed an agreement to acquire US-based WhiteHat Security, Inc., a leading application security operator, as its wholly owned subsidiary.
- To respond to demand for cloud services and data centers in various regions worldwide, NTT Group advanced the expansion of its service provision systems in various countries that have continuous market expansion. In addition, NTT Group established an investment subsidiary company, with the objective of centralizing the construction, ownership and the provision of wholesale equipment for data centers of the NTT Group.

Summary of Segment Performance (April 1, 2018 to March 31, 2019)

	Fiscal Year Ended March 31,			
	2018	2019	Change	Percent Change
	(in billions of yen)			
Operating revenues	2,242.2	2,278.7	36.5	1.6 %
Fixed voice related services	239.9	220.3	(19.6)	(8.2) %
IP/packet communications services	410.2	427.5	17.3	4.2 %
Sales of telecommunications equipment	14.7	11.5	(3.2)	(21.7) %
System integration services	1,404.0	1,439.1	35.1	2.5 %
Other	173.4	180.3	6.9	4.0 %
Operating expenses	2,151.6	2,178.5	26.9	1.3 %
Operating profit	90.6	100.1	9.6	10.6 %

Operating revenues in the Long Distance and International Communications Business Segment for the fiscal year ended March 31, 2019 were ¥2,278.7 billion (an increase of 1.6% from the previous fiscal year), as a result of an increase in revenues from system integration services due to the expansion of overseas business, as well as an increase in revenues from IP and packet communications services due to the expansion of Arcstar Universal One and the expansion of consolidated subsidiaries, despite a decrease in revenues from fixed voice-related services. On the other hand, operating expenses were ¥2,178.5 billion (an increase of 1.3% from the previous fiscal year), as a result of an increase in revenue-linked expenses due to the expansion of overseas business, among other things, despite impairment losses that occurred in the previous year, not occurring for the fiscal year ended March 31, 2019. As a result, operating profit was ¥100.1 billion (an increase of 10.6% from the previous fiscal year).

**Number of Subscriptions for IP/packet Communications-Related Services
in the Long Distance and International Communications Business Segment**

As of March 31,

	2018	2019	Change	Percent Change
	(in thousands)			
OCN (ISP)	7,521	7,305	(216)	(2.9) %
Plala (ISP)	3,145	3,234	89	2.8 %
Hikari TV	3,016	3,001	(14)	(0.5) %

Revenues from Plala and Hikari TV are included in "Other" operating revenues.

4. Data Communications Business Segment

In the data communications business segment, NTT Group responded to the acceleration of its customers' digital transformation at a global level, and to their increasingly diversified and sophisticated needs, by working to expand its business in the global market and to extend and consistently provide a range of IT services, such as offerings of digitalization and system integration, that are responsive to the changes in the market.

Details of Main Initiatives

- In collaboration with local governments and local municipalities, NTT Group used “WinActor®” to research and test improvements in process efficiencies and workstyle reforms. As a result, NTT Group confirmed a reduction effect in routine work related to individual and corporate taxes, as well as high accuracy for AI-OCR when reading a variety of forms, and announced the practicality of the solutions.
- NTT Group decided to begin offering a service whereby retail operators can handle various code payment methods, such as QR codes and one-dimensional bar codes from both Japan and overseas, by using just one payment terminal or a single interface for “CAFIS,” the largest payment platform in Japan. Also, for local governments, NTT Group began offering the “Mobile Register Public Fund Credit Collection Service,” which enables credit payments via smartphone. Moreover, in preparation for expanding its electronic payments business in the APAC region, NTT Group took steps such as signing an agreement to acquire India-based Atom Technologies Limited a subsidiary, thus promoting initiatives to provide highly convenient and sophisticated pay-related services both in Japan and overseas.
- In order to further strengthen our service provision capabilities, primarily in the digital area, NTT Group acquired UK-based MagenTys Holdings Limited, Germany-based Sybit GmbH, and Canada-based Sierra Systems Group, Inc. as subsidiaries.

Summary of Segment Performance (April 1, 2018 to March 31, 2019)

	Fiscal Year Ended March 31,		Change	Percent Change
	2018	2019		
	(in billions of yen)			
Operating revenues	2,045.2	2,163.6	118.4	5.8 %
System integration services	2,045.2	2,163.6	118.4	5.8 %
Operating expenses	1,922.0	2,015.9	93.9	4.9 %
Operating profit	123.2	147.7	24.5	19.9 %

Operating revenues in the data communications business segment for the fiscal year ended March 31, 2019 increased to ¥2,163.6 billion (an increase of 5.8% from the previous fiscal year) due to, among other things, the expansion of business in the enterprise and solution and public/social infrastructure fields domestically, and the expansion of overseas business, especially in EMEA and Latin America. On the other hand, operating expenses increased to ¥2,015.9 billion (an increase of 4.9% from the previous fiscal year) due to, among other things, the impact of an increase in revenue-linked expenses. As a result, operating profit in the fiscal year ended March 31, 2019 increased 19.9% from the previous fiscal year to ¥147.7 billion.

5. Other Business Segment

In the other business segment, NTT Group mainly provided services related to the real estate business, finance business, construction and electric power business, and system development business.

Details of Main Initiatives

• Real Estate Business

In the Otemachi district of Chiyoda-ku, Tokyo, which is moving ahead to strengthen its functions to serve as an international business center, we opened Otemachi PLACE, whose facilities include the highest-level communications environment in Japan and a large hall that can deal with international conferences. In addition, NTT Group moved ahead with preparations to establish an urban solutions business promotion company, which will centralize functions of the NTT Group's real estate business.

• Finance Business

NTT Group developed financial services such as leasing and financing to facilitate the popularization of ICT devices and resolve social challenges revolving around the environmental, educational and medical fields. Furthermore, NTT Group provided billing and collection services for telecommunication service bills, and credit card transaction settlement services.

• Construction and Electric Power Business

By combining and utilizing its technology in ICT, energy, and construction to the fullest extent, NTT Group has implemented initiatives for the utilization of natural energy, such as by completing solar power plants, including the Minamisoma Kawabusa Power Generation Mega Solar Power Plant, as well as for the efficient, waste-free use of limited energy, working toward safe and secure urban development that is resilient against the risk of natural disaster.

• System Development Business

NTT Group worked to develop network operation systems and application services to provide optimized, high-quality ICT services. Additionally, NTT Group worked to develop solutions utilizing cutting-edge technologies such as IoT, big data and AI.

Summary of Segment Performance (April 1, 2018 to March 31, 2019)

	Fiscal Year Ended March 31,			
	2018	2019	Change	Percent Change
	(in billions of yen)			
Operating revenues	1,214.6	1,240.3	25.7	2.1 %
Operating expenses	1,115.9	1,154.6	38.7	3.5 %
Operating profit	98.7	85.6	(13.1)	(13.2) %

In the other business segment, operating revenues for the fiscal year ended March 31, 2019 increased to ¥1,240.3 billion (an increase of 2.1% from the previous fiscal year), primarily due to an increase in revenues from the finance business, despite decreases resulting from the recording of temporary revenues in the previous year in the real estate business. On the other hand, operating expenses for the fiscal year ended March 31, 2019 also increased to ¥1,154.6 billion (an increase of 3.5% from the previous fiscal year) due to, among other things, an increase in revenue-linked expenses in the finance business. As a result, operating profit decreased to ¥85.6 billion (a decrease of 13.2% from the previous fiscal year).

Reference: Geographic Sales Information

	Fiscal Year Ended March 31,		Change	Percent Change
	2018	2019		
	(in billions of yen)			
Operating revenues.....	11,782.1	11,879.8	97.7	0.8 %
Domestic(*)	9,599.7	9,632.7	33.0	0.3 %
Overseas(*)	2,182.5	2,247.2	64.7	3.0 %

(*) Figures are shown based on the geographic location of the services and products provided.

Domestic operating revenues for the fiscal year ended March 31, 2019 increased to ¥9,632.7 billion (an increase of 0.3% from the previous fiscal year), due to, among other things, an increase in revenues in the mobile communications business segment. Overseas operating revenues for the fiscal year ended March 31, 2019 increased to ¥2,247.2 billion (an increase of 3.0% from the previous fiscal year) due to, among other things, the impact of the expansion of business in the data communications business segment.

Notes

1. MOU (average monthly minutes of use per unit): Average communication time per user

2. ARPU: Average monthly revenue per unit

Average monthly revenue per unit, or ARPU, is used to measure average monthly operating revenues on a per subscriber (user) basis. In the case of NTT Group's fixed-line business, ARPU is calculated by dividing revenue items included in the operating revenues of NTT Group's regional communications business segment (i.e., fixed-line (telephone subscriber lines plus INS-Net subscriber lines) and FLET'S Hikari) by the number of Active Subscribers to the relevant services. In the case of the mobile communications business, ARPU is calculated by dividing communications services revenue items included in operating revenues from NTT Group's mobile communications business segment, such as revenues from LTE (Xi) mobile phone services, FOMA mobile phone services and docomo Hikari services (with certain exceptions), by the number of Active users to the relevant services. The calculation of these figures excludes revenues that are not representative of monthly average usage, such as telecommunications equipment sales, activation fees and universal service charges.

NTT believes that its ARPU figures calculated in this way provide useful information regarding the monthly average usage of its subscribers. The revenue items included in the numerators of NTT Group's ARPU figures are based on its financial results comprising its IFRS results of operations.

3. Method of calculating ARPU

(a) NTT East and NTT West

NTT separately computes the following two categories of ARPU for the fixed-line business conducted by each of NTT East and NTT West, using the following measures:

- Aggregate Fixed-line ARPU (Telephone Subscriber Lines + INS-Net Subscriber Lines): Calculated based on revenues from monthly charges and call charges for Telephone Subscriber Lines and INS-Net Subscriber Lines, which are included in operating revenues from Voice Transmission Services (excluding IP Services), and revenues from FLET'S ADSL and FLET'S ISDN, which are included in operating revenues from IP Services.
- FLET'S Hikari ARPU: Calculated based on revenues from FLET'S Hikari (including FLET'S Hikari optional services), which are included in operating revenues from IP Services and Supplementary Business, revenues from monthly charges, call charges and device connection charges for Hikari Denwa, which are included in operating revenues from IP Services, and revenues from "FLET'S Hikari" optional services, which are included in Supplementary Business revenues.

(1) FLET'S Hikari includes B FLET'S, FLET'S Hikari Next, FLET'S Hikari Light, FLET'S Hikari Lightplus and FLET'S Hikari WiFi Access provided by NTT East, B FLET'S, FLET'S Hikari Premium, FLET'S Hikari Mytown, FLET'S Hikari Next, FLET'S Hikari Mytown Next, FLET'S Hikari Light and FLET'S Hikari WiFi Access provided by NTT West, and the "Hikari Collaboration Model" wholesale provision of services provided by NTT East and NTT West to service providers. FLET'S Hikari optional services include wholesale services provided to service providers by NTT East and NTT West.

(2) Revenues from interconnection charges are excluded from the calculation of Aggregate Fixed-line ARPU (Telephone Subscriber Lines + INS-Net Subscriber Lines) and FLET'S Hikari ARPU.

(3) For purposes of calculating Aggregate Fixed-line ARPU (Telephone Subscriber Lines + INS-Net Subscriber Lines), the number of subscribers is that for fixed-line services (telephone subscriber lines or INS Net subscriber lines).

(4) In terms of number of channels, transmission rate, and line use rate (base rate), INS-Net 1500 is in all cases roughly ten times greater than INS-Net 64. For this reason, one INS-Net 1500 subscription is calculated as ten INS-Net 64 subscriptions.

(5) For purposes of calculating FLET'S Hikari ARPU, the number of subscribers is determined based on the number of FLET'S Hikari subscribers (including B FLET'S, FLET'S Hikari Next, FLET'S Hikari Light, FLET'S Hikari Lightplus and FLET'S Hikari WiFi Access provided by NTT East, B FLET'S, FLET'S Hikari Premium, FLET'S Hikari Mytown, FLET'S Hikari Next, FLET'S Hikari Mytown Next, FLET'S Hikari Light and FLET'S Hikari WiFi Access provided by NTT West), and "Hikari Collaboration Model" wholesale services provided by NTT East and NTT West to service providers.

(6) Number of Active Subscribers used in the ARPU calculation of NTT East and NTT West is as below:

FY Results: Sum of number of Active Subscribers for each month from April to March

Active Subscribers = (number of subscribers at end of previous month + number of subscribers at end of current month)/2

(b) NTT DOCOMO

NTT computes ARPU for NTT DOCOMO as follows:

Aggregate ARPU = Mobile ARPU + "docomo Hikari" ARPU.

(1) Mobile ARPU: Mobile ARPU related revenues {voice-related revenues (basic monthly charges, voice communication charges) + packet-related revenues (basic monthly charges, packet communication charges)} / Number of active users

"docomo Hikari" ARPU: "docomo Hikari" ARPU-related revenues (basic monthly charges and voice communication charges) / Number of Active Users

The sum of Packet ARPU and "docomo Hikari" ARPU is referred to as "Data ARPU."

(2) Number of Active Users used in the ARPU calculation of NTT DOCOMO is as below.

Sum of number of Active Users for each month during the applicable period

Active Users = (number of users at end of previous month + number of users at end of current month)/2.

(3) The number of "users" used to calculate ARPU is basically total number of subscriptions, excluding the subscriptions listed below:

Number of active users = subscriptions

a. Subscriptions of communication module services, "Phone Number Storage," "Mail Address Storage," "docomo Business Transceiver" and wholesale telecommunications services and interconnecting telecommunications facilities that are provided to MVNOs; and

b. Data Plan subscriptions in the case where the customer contracting for such subscription in his/her name also has a subscription for Xi or FOMA services in his/her name.

Revenues from communication module services, "Phone Number Storage," "Mail Address Storage," "docomo Business Transceiver" and wholesale telecommunications services and interconnecting telecommunications facilities that are provided to MVNOs are not included in NTT DOCOMO's ARPU calculation.

(3) Liquidity and Capital Resources

The status of cash flows during the fiscal years ended March 31, 2018 and 2019 were as follows.

Year Ended March 31	Billions of yen	
	2018	2019
Cash flows provided by operating activities	2,541.3	2,406.2
Cash flows provided by operating activities (Excluding the impact of non-business days ^{(1),(2)})	2,773.2	2,397.9
Cash flows used in investing activities	(1,746.2)	(1,774.1)
Cash flows used in financing activities	(968.3)	(584.3)
Cash and cash equivalents at the end of year	895.0	946.1
Cash and cash equivalents at the end of year (Excluding the impact of non-business days ^{(1),(3)})	1,126.9	1,169.8

- (1) The impact in the amount of ¥231.9 billion, caused by the last day of the fiscal year ended March 31, 2018 falling on a non-business day, resulting in the due date for certain bills, including telecommunication services bills, being set to the first business day of the following month.
- (2) The impact in the amount of ¥8.3 billion, caused by the last days of the fiscal year ended March 31, 2018 and 2019 falling on non-business days, resulting in the due date for certain bills, including telecommunication services bills, being set to the first business day of the following month.
- (3) The impact in the amount of ¥223.7 billion, caused by the last day of the fiscal year ended March 31, 2019 falling on a non-business day, resulting in the due date for certain bills, including telecommunication services bills, being set to the first business day of the following month.

Financing, Capital Resources and Use of Funds

Cash flows provided by operating activities during the fiscal year ended March 31, 2019, excluding the impact of non-business days, amounted to ¥2,397.9 billion, a decrease of ¥375.3 billion from ¥2,773.2 billion in the fiscal year ended March 31, 2018. This decrease was due to, among other factors, income from an arbitration award for the fiscal year ended March 31, 2018 and a decrease in collections of trade receivables for the fiscal year ended March 31, 2019. Cash flows provided by operating activities for the fiscal year ended March 31, 2019 was ¥2,406.2 billion.

NTT Group used the cash flows provided by operating activities mainly to acquire property, plant and equipment, pay dividends and complete stock repurchases.

Cash flows used in investing activities during the fiscal year ended March 31, 2019 amounted to ¥1,774.1 billion, an increase in payments of ¥28.0 billion from ¥1,746.2 billion in the fiscal year ended March 31, 2018. This increase was due to, among other factors, an increase of ¥98.2 billion in expenditures on acquisitions of control over subsidiaries, despite a decrease of ¥75.8 billion in investments for property, plant and equipment and intangibles on a cash basis.

The decrease in payments for investments in property, plant and equipment and intangibles for the fiscal year ended March 31, 2019 resulted from, among other factors, a decrease in capital expenditures due to improved efficiency in access equipment maintenance in the regional communications business. For the fiscal year ended March 31, 2019, capital investments amounted to ¥1,697.0 billion on an accrual basis, of which ¥593.7 billion was invested in the mobile communications business and ¥541.0 billion was invested in the regional communications business.

Cash flows used in financing activities during the fiscal year ended March 31, 2019 amounted to ¥584.3 billion, a decrease in payments of ¥384.0 billion from ¥968.3 billion in the fiscal year ended March 31, 2018. This decrease in payments was due to, among other factors, a net increase of ¥482.7 billion in proceeds as a result of increases in short-term and long-term debt. The capital raised from the issuance of long-term debt in the fiscal year ended March 31, 2019 includes ¥15.6 billion in net proceeds from corporate bond offerings and an aggregate of ¥419.3 billion in loans from financial institutions.

As of March 31, 2019, the total balance of the interest-bearing debt of NTT Group was ¥4,262.7 billion, an increase of ¥291.1 billion from the balance of ¥3,971.6 billion as of March 31, 2018. The ratio of interest-bearing debt to shareholders' equity stood at 46.0% as of March 31, 2019 (from 43.9% as of March 31, 2018).

NTT Group believes that the net cash it expects to generate from operating activities, financing from banks and other financial institutions and/or offerings of equity or debt securities in the capital markets will provide the requisite financial resources to meet NTT Group's currently anticipated capital investment and other expenditure needs and payment of debt.

For the fiscal year ending March 31, 2020, NTT Group expects to make capital investments totaling ¥1,750.0 billion on an accrual basis, due to, among other factors, an increase in capital investments due to data center-related work in the long distance and international communications business, despite a decrease in capital investments related to improved efficiency in existing network investments in the mobile communications business and a decrease in capital investments related to improved efficiency in the maintenance of access equipment and in the work related to opening new lines in the regional communications business. The total amount of expected capital investments includes ¥570.0 billion in the mobile communications business and ¥520.0 billion in the regional communications business. The actual amount of capital investments may be different from expected one, since capital investments may be influenced by trends in demand, the competitive environment and other factors. In addition, the actual amount of NTT Group's financing will depend on its future performance, market conditions and other factors, and is therefore difficult to predict.

Liquidity

As of March 31, 2019, NTT Group had cash and cash equivalents balance, excluding the impact of non-business days, at the end of the fiscal year of ¥1,169.8 billion, an increase of ¥42.9 billion compared to the balance of ¥1,126.9 billion as of March 31, 2018. Cash equivalents represent a temporary cash surplus used to repay debts and make capital investments, among other factors, and are used as working capital. Accordingly, the balance of cash equivalents fluctuates each fiscal year depending on particular financing and working capital requirements. Cash and cash equivalents at the end of the fiscal year ended March 31, 2019, were ¥946.1 billion.

Contractual Obligations

NTT Group's existing contractual obligations as of March 31, 2019 were summarized as follows:

Contractual Obligations	Payments Due by Period			
	Total	Less than one year	One to five years	More than five years
	(in millions of yen)			
Long-term debt ⁽¹⁾				
Bonds	1,034,056	275,478	661,693	96,885
Bank loans	2,337,703	231,100	1,164,881	941,722
Interest payments on long-term debt	178,626	39,322	88,372	50,932
Finance lease obligations ⁽²⁾	61,733	16,198	26,023	19,512
Operating leases	225,824	52,826	115,214	57,784
Purchase commitments ⁽³⁾	77,280	36,161	31,316	9,801
Other fixed liabilities ⁽⁴⁾	—	—	—	—

(1) Long-term debt is presented including amounts maturing within one year. See Note 19 to the Consolidated Financial Statements for details on Long-term debt.

(2) Finance lease obligations include interest.

(3) Purchase commitments mainly represent outstanding commitments for the purchase of property, plant and equipment and other assets. The amount includes outstanding commitments with a remaining term of one year or less but excludes those which are cancelable.

(4) The amount of other long-term obligations is not shown in the above table, due to the immateriality of certain obligations and uncertainty of certain payments. In addition, NTT Group expects to contribute a total amount of ¥17,743 million to its pension plans in the fiscal year ending March 31, 2020 (see Note 23 to the Consolidated Financial Statements).

As of March 31, 2019, NTT Group had outstanding commitments mainly for the purchase of property, plant and equipment and other assets of approximately ¥77.3 billion. NTT Group expects to fund such commitments with cash flows provided by operating activities.

(4) Significant Accounting Estimates and Judgements Involving Estimates

Please see Note 4 in the consolidated financial statements.

4. Significant Management Contracts

Not applicable.

5. Research and Development

In accordance with the “Your Value Partner 2025” Medium-Term Management Strategy, NTT Group is promoting innovative research and development with the aim of effecting global change. In order for research and development to be a wellspring of new value to be created in diverse fields, NTT Group has promoted initiatives together with parties in a wide range of industrial fields with the goal of enhancing industrial competitiveness and resolving societal issues.

Research and Development to Promote the B2B2X Model

- Together with Mitsubishi Heavy Industries, Ltd., NTT Group applied technology derived from optical fiber for communications use to laser processing with the aim of creating a revolution in manufacturing technology used in social infrastructure industries and succeeded in transmitting high-power singlemode laser light over distances ranging from several tens to several hundreds of meters, where previously it was able to transmit no more than a few meters, while maintaining a level of quality suitable for high-precision processing.
- NTT and Mitsubishi Heavy Industries, Ltd. jointly developed a cybersecurity technology for critical infrastructure control systems that is able to detect anomalies caused by unknown cyberattacks and respond in real time, which was subsequently commercialized as “InterSePT®” and is now on sale.
- NTT and Toyota Motor Corporation, which is a joint research partner of ICT platforms for connected cars, have begun trials with the aim of establishing a technology platform for achieving automated driving.
- With regard to MaaS, which the NTT Group is promoting for consideration in the “Mobility Innovation Consortium” founded by East Japan Railway Company, trials have begun that link transport operators, on-demand transportation and commercial facilities, using the SUICA authentication system, which is based on cloudbased ID authentication system developed along with associated services by NTT Data and JR EAST MECHATRONICS CO., LTD.
- NTT and Shochiku Co., Ltd. have entered into an agreement to jointly conduct new commercial performances of Kabuki by means of collaborations that involve Kabuki and the latest ICT. It has been announced that the first of these collaborations, hosted jointly by “NTT-Shochiku Partners,” a voluntary partnership established by both companies, will be held as the “Minamiza Reopening Commemorative Event ‘August Minamiza Chokabuki’” at the Kyoto Minamiza Theatre.

Strengthening and Globalizing Research and Development

- With the aim of accelerating digital transformation, NTT and major French telecommunications operator Orange, which primarily operates its business in Europe, have signed a strategic research and development (R&D) framework agreement to facilitate the mutual use of research findings in several key areas, including 5G, network transformation, AI, IoT and cybersecurity.
- With the goal of solving social challenges that are common between Japan and Australia, NTT, Deakin University, Western Sydney University, and Dimension Data Australia have entered into a partnership agreement in order to share a vision of “a society in which elderly people can lead safe, healthy, and independent lives,” and to find innovative solutions to implement this vision.

Research and Development Aimed at Achieving Immersive and Natural Worlds

- NTT has further evolved its “Kirari!®” processing technology, which aims to create worlds that provide “just like being there,” ultrahighimmersion experiences in real time that can be accessed anywhere. The newly developed techniques not only enable the processing and transmission of the image of subjects from video broadcasts, along with 3D positioning information, but also allows them to be reproduced at the destination in a pseudo-3D display that generates in the viewer the sense that the subjects

also move towards and away from the viewer. This results in the achievement of an audience experience in which the subjects appear to move in three dimensions at the destination.

- NTT has developed natural forms of AI that can be more easily integrated into society, such as anglefree rigid and non-rigid object information retrieval technology that can, for example, improve the efficiency of warehouse management and save labor in cash register operations by recognizing an object as the same item even after it has changed shape.
- NTT has also started a new “Point of Atmosphere” program of research that allows not only electronic terminals but also various everyday objects to be used as devices to convey information more naturally

Promoting Cutting-edge Research

- Given that is anticipated that there will be further evolution of high-capacity optical networks in preparation for the full-scale adoption of IoT and 5G services, NTT has developed new proprietary technology for digital signal processing and ultra wide area optical devices, increasing the channel capacity per wavelength to the point that transmission speeds achieve a level more than 10 times that of current commercial systems, and succeeding in achieving a global first of 1 terabit/ sec of capacity in long-distance wavelengthdivision multiplexed transmission trials.
- NTT has succeeded in achieving high-capacity wireless transmissions at approximately 100 times the speed of LTE and Wi-Fi, and five times that of 5G, by using two technologies. First, we succeeded in wireless transmission at rates of 100Gb/sec in the 28GHz band by using a new principle called OAM multiplexing. Second, in a joint effort with National University Corporation Tokyo Institute of Technology, we developed an ultra-fast IC that enables wireless transmissions of 100Gb/sec in the 300GHz band, where it is relatively easy to expand the transmission band.
- Through advances in the research and development of the LASOLV Laser ising machine, a new computer that is capable of solving difficult problems by using the physical properties of light, NTT researchers have enabled it to be applied to a variety of combinatorial optimization problems, which are expected to be used in such areas as drug discovery, relieving traffic congestion and AI machine learning.
- Focusing on the trend towards enabling the devices in our daily lives to connect to the Internet, NTT has proposed a transparent battery that blends in with its surroundings without drawing attention to itself, and have confirmed its operation as a battery.

As a result of these research and development initiatives, total expenditures for the year ended March 31, 2019 were ¥99.2 billion yen (a 2.7% increase from the previous fiscal year), partially offset by revenues from core research and development of ¥97.9 billion yen (a 3.2% increase from the previous fiscal year).

The following table presents a summary of research and development costs by segment for the fiscal year ended March 31, 2019:

Segment	Millions of yen	Summary
Mobile communications business.....	90,967	Research and development in the area of new products and services related to mobile communications, and research and development aimed at increasing the quality of existing services and enhancing the performance of network functions, among other things.
Regional communications business...	82,729	Research and development relating to IP and broadband services, increasing access services to meet diversifying user needs, high value-added services, and other services.
Long distance and international communications business.....	17,978	Development of high value-added services in fields ranging from IP networks to platforms, and other services.
Data communications business.....	15,094	Technology development to strengthen competitiveness in systems integration and other fields.
Other business.....	102,554	Research and development relating to: (a) the creation of basic technologies required for the development of advanced networks and new services that will support the development of an ICT society, (b) technologies that contribute to reducing industry's burden on the environment, (c) new principles, new parts and new materials expected to bring about extensive technological innovations in the information and communications sector, and (d) others.
Subtotal.....	309,322	
Elimination.....	(98,000)	
Total.....	211,322	

ITEM 3. PROPERTY, PLANT AND EQUIPMENT

1. Overview of Capital Investments

NTT Group (including its consolidated subsidiaries) has shifted its investment focus from investments primarily centered on telecommunications infrastructure project developments to investments that are responsive to various service needs.

The following table summarizes capital investments for the fiscal year ended March 31, 2019:

Segment	Millions of yen	Percent Change	Summary
Mobile communications business	593,749	2.9%	Expansion and improvement of mobile communications transmissions equipment, and others
Regional communications business.....	540,997	(1.6)%	Maintenance and improvements of voice communications equipment, expansion of data transmissions equipment, and others
Long distance and international communications business.....	244,326	4.0%	Expansion and improvement of data communications equipment, maintenance and improvements of voice communications equipment, and others
Data communications business	179,214	(8.0)%	Expansion and maintenance of data communications equipment, and others
Other business.....	138,672	(2.0)%	
Total.....	1,696,958	(0.1)%	

Notes: 1. The above figures do not include consumption taxes.

2. NTT Group plans to procure the required funds from cash on hand, the issuance of corporate bonds and long-term debt.

3. Capital investments include investments related to the acquisition of intangible assets.

4. NTT Group used the capital investment amounts shown above, determined on an accrual basis, for the purchase of property, plant and equipment, intangible assets, and investment property. The table below presents the difference between the amount of capital investments shown above and the amount presented on the consolidated statements of cash flows under "Purchase of property, plant and equipment, intangible assets, and investment property."

	Year ended March 31, 2019
	(in millions of yen)
Purchase of property, plant and equipment, intangible assets, and investment property.....	1,672,350
Difference in capital investment amounts.....	(24,608)

2. Overview of Major Facilities

NTT Group's major facilities were as follows:

(1) Breakdown by Segment

As of March 31, 2019

	Telecom Facilities	Land	Buildings	Other	Total	Number of Employees
	(book value, in millions of yen)					(people)
Mobile communications business.....	1,790,112	153,115	284,356	797,278	3,024,861	26,629
Regional communications business.....	3,196,871	267,514	726,373	556,382	4,747,140	79,534
Long distance and international communications business.....	192,731	75,097	291,310	1,040,435	1,599,573	48,020
Data communications business.....	105,632	49,763	106,090	889,282	1,150,767	123,884
Other business.....	—	152,293	228,345	1,041,313	1,421,951	25,284
Total.....	5,285,346	697,782	1,636,474	4,324,690	11,944,292	303,351

Note: The above figures do not include consumption taxes.

(2) Overview of the Company and Consolidated Subsidiaries

As of March 31, 2019

<u>Company Name</u>	<u>Type of Asset</u>	<u>Book Value (Millions of Yen)</u>	<u>Land Area (m²)</u>	<u>Number of Branches</u>	<u>Number of Employees</u>
Nippon Telegraph and Telephone Corporation	Mechanical equipment	-	834,341.65	Headquarters (1)	2,562
	Antenna systems	-		Others (4)	
	Terminal equipment	-			
	Local lines equipment	-			
	Long-distance lines equipment	-			
	Civil engineering equipment	-			
	Underwater lines equipment	-			
	Land	29,200			
	Buildings	87,509			
	Leased assets	31			
	Other	40,966			
Total	157,707				

As of March 31, 2019

<u>Company Name</u>	<u>Type of Asset</u>	<u>Book Value (Millions of Yen)</u>	<u>Land Area (m²)</u>	<u>Number of Branches</u>	<u>Number of Employees</u>
NTT DOCOMO, Inc.	Mechanical equipment	1,167,923	3,779,797.00	Headquarters (1) Branches (8)	7,884
	Antenna systems	546,143			
	Terminal equipment	-			
	Local lines equipment	31,294			
	Long-distance lines equipment	-			
	Civil engineering equipment	13,967			
	Underwater lines equipment	-			
	Land	196,262			
	Buildings	271,295			
	Leased assets	766			
	Other	722,089			
	Total	2,949,742			
	Nippon Telegraph and Telephone East Corporation	Mechanical equipment			
Antenna systems		3,299			
Terminal equipment		20,840			
Local lines equipment		832,631			
Long-distance lines equipment		2,871			
Civil engineering equipment		575,464			
Underwater lines equipment		467			
Land		196,032			
Buildings		390,501			
Leased assets		1,206			
Other		143,894			
Total		2,486,938			

As of March 31, 2019

<u>Company Name</u>	<u>Type of Asset</u>	<u>Book Value (Millions of Yen)</u>	<u>Land Area (m²)</u>	<u>Number of Branches</u>	<u>Number of Employees</u>
Nippon Telegraph and Telephone West Corporation	Mechanical equipment	268,886	10,367,110.00	Headquarters (1) Branches (30)	3,500
	Antenna systems	6,942			
	Terminal equipment	10,890			
	Local lines equipment	1,030,237			
	Long-distance lines equipment	1,600			
	Civil engineering equipment	499,876			
	Underwater lines equipment	3,402			
	Land	171,471			
	Buildings	321,832			
	Leased assets	171			
	Other	112,393			
	Total	2,427,705			
NTT Communications Corporation	Mechanical equipment	137,194	890,530.42	Headquarters (1) Branches (14)	6,150
	Antenna systems	1,500			
	Terminal equipment	2,117			
	Local lines equipment	1,106			
	Long-distance lines equipment	5,391			
	Civil engineering equipment	48,676			
	Underwater lines equipment	12,286			
	Land	49,440			
	Buildings	199,958			
	Leased assets	9,381			
	Other	173,105			
	Total	640,140			

As of March 31, 2019

<u>Company Name</u>	<u>Type of Asset</u>	<u>Book Value (Millions of Yen)</u>	<u>Land Area (m²)</u>	<u>Number of Branches</u>	<u>Number of Employees</u>
NTT DATA CORPORATION	Mechanical equipment	93,743	153,380.00	Headquarters (1) Branches (19)	11,310
	Antenna systems	-			
	Terminal equipment	9,690			
	Local lines equipment	-			
	Long-distance lines equipment	-			
	Civil engineering equipment	-			
	Underwater lines equipment	-			
	Land	56,064			
	Buildings	81,516			
	Leased assets	707			
	Other	261,100			
Total	502,801				

3. Planned Capital Investments and Disposals of Property

At NTT Group (including NTT and its consolidated subsidiaries), plans for capital investments are generally made at the level of each subsidiary. Planned capital investments for the year ending March 31, 2020 are ¥1,750.0 billion yen, broken down by segment as follows:

<u>Segment</u>	<u>Amount (millions of yen)</u>	<u>Description and Purpose of Investment</u>
Mobile communications business	570,000	Expansion and improvement of mobile communications transmissions equipment, and others
Regional communications business	520,000	Maintenance and improvements of voice communications equipment, expansion of data transmissions equipment, and others
Long distance and international communications business	267,000	Expansion and improvement of data communications equipment, maintenance and improvements of voice communications equipment, and others
Data communications business	202,000	Expansion and maintenance of data communications equipment, and others

Notes: 1. The above figures do not include consumption taxes.

2. NTT Group plans to procure the required funds from cash on hand, the issuance of corporate bonds and long-term debt.

ITEM 4. INFORMATION ON NTT

1. Information on NTT's Shares

(1) Total Number of Shares

i. Total Number of Shares

<u>Class</u>	<u>Total Number of Shares Authorized to be Issued (shares)</u>
Common stock	6,192,920,900
Total	6,192,920,900

ii. Issued Shares

<u>Class</u>	<u>Number of Shares Issued as of March 31, 2019 (shares)</u>	<u>Number of Shares Issued as of the Filing Date (shares) (June 26, 2019)</u>	<u>Stock Exchange on which the Company is Listed</u>	<u>Description</u>
Common Stock	1,950,394,470	1,950,394,470	Tokyo Stock Exchange (First Section)	The number of shares per one unit of shares is 100 shares
Total	1,950,394,470	1,950,394,470	—	—

Notes: 1. Pursuant to the Board of Directors' resolution on February 21, 2018, NTT acquired 29,178,200 shares of its outstanding common stock between March 5, 2018 and May 23, 2018.

2. Pursuant to the Board of Directors' resolution on November 6, 2018, NTT acquired 32,868,000 shares of its outstanding common stock between November 8, 2018 and January 11, 2019.

3. Pursuant to the Board of Directors' resolution on May 10, 2019, NTT acquired 24,600,000 shares of its outstanding common stock between May 14, 2019 and May 31, 2019.

(2) Information on Share Acquisition Rights

i. Description of Stock Option System

Not applicable.

ii. Information on Shareholder Rights Plans

Not applicable.

iii. Information on Other Share Acquisition Rights

Not applicable.

(3) Information on Moving Strike Convertible Bonds

Not applicable.

(4) Changes in the Total Number of Issued Shares and Capital

<u>Date</u>	<u>Changes in the total number of issued shares (shares)</u>	<u>Balance of the total number of issued shares (shares)</u>	<u>Changes in Capital (millions of yen)</u>	<u>Balance of Capital (millions of yen)</u>	<u>Change in Capital Reserve (millions of yen)</u>	<u>Balance of Capital Reserve (millions of yen)</u>
July 1, 2015 ⁽¹⁾	1,136,697,235	2,273,394,470	—	937,950	—	2,672,826
November 13, 2015 ⁽²⁾	(177,000,000)	2,096,394,470	—	937,950	—	2,672,826
September 26, 2018 ⁽³⁾	(146,000,000)	1,950,394,470	—	937,950	—	2,672,826

Notes: 1. NTT completed a two-for-one stock split of its common stock with an effective date of July 1, 2015.

2. NTT cancelled 177,000,000 shares held as treasury stock on November 13, 2015.

3. NTT cancelled 146,000,000 shares held as treasury stock on September 26, 2018.

(5) Composition of Shareholders

As of March 31, 2019

Class	Status of Shares (100 shares per unit of stock)							Number of Less-than-One-Unit Shares (shares)	
	National and Local Governments	Financial Institutions	Financial Instrument Business Operators	Other Institutions	Foreign Shareholders		Individuals and Others		Total
					Non-Individuals	Individuals			
Number of Shareholders (people)	4	267	62	5,036	1,555	781	629,450	637,155	–
Share Ownership (units)	6,791,419	3,771,230	267,508	247,966	5,189,503	11,321	3,199,863	19,478,810	2,513,470
Percentage of Shares (%)	34.87	19.36	1.37	1.27	26.64	0.06	16.43	100.00	–

Notes: 1. “Individuals and Others” and “Number of Less-than-One-Unit Shares” above include 329,983 units and 46 shares of treasury stock, respectively. Furthermore, there were 32,998,346 shares of treasury stock recorded on the list of shareholders, and the actual number of treasury stock held was 32,997,746 as of March 31, 2019.

2. “Other Institutions” and “Number of Less-than-One-Unit Shares” above include 289 units and 44 shares registered in the name of Japan Securities Depository Center, Inc., respectively.

3. The number of persons holding less-than-one-unit shares was 184,020.

(6) Major Shareholders

As of March 31, 2019

Name	Address	Number of Shares Held (thousands of shares)	Ownership Percentage of the Total Number of Issued Shares
The Minister of Finance	1-1, Kasumigaseki 3-chome, Chiyoda-ku, Tokyo	679,121	35.42
The Master Trust Bank of Japan, Ltd. (Trust Account)	11-3, Hamamatsucho 2-chome, Minato-ku, Tokyo	85,651	4.47
Japan Trustee Services Bank, Ltd. (Trust Account)	8-11, Harumi 1-chome, Chuo-ku, Tokyo	79,101	4.13
Japan Trustee Services Bank, Ltd. (Trust Account 9)	8-11, Harumi 1-chome, Chuo-ku, Tokyo	29,504	1.54
Japan Trustee Services Bank, Ltd. (Trust Account 5)	8-11, Harumi 1-chome, Chuo-ku, Tokyo	26,339	1.37
Japan Trustee Services Bank, Ltd. (Trust Account 1)	8-11, Harumi 1-chome, Chuo-ku, Tokyo	17,537	0.91
JPMorgan Chase Bank 385632 (Standing proxy: Mizuho Bank, Ltd.)	25 BANK STREET, CANARY WHARF, LONDON, E14 5JP, UNITED KINGDOM (15-1, Konan 2-chome, Minato-ku, Tokyo)	17,442	0.91
Moxley & Co. LLC (Standing proxy: MUFG Bank, Ltd.)	4 NEW YORK PLAZA, 13TH FLOOR, NEW YORK, NY 10004 U.S.A (7-1, Marunouchi 2-chome, Chiyoda-ku)	16,345	0.85
Japan Trustee Services Bank, Ltd. (Trust Account 2)	8-11, Harumi 1-chome, Chuo-ku, Tokyo	16,301	0.85
Japan Trustee Services Bank, Ltd. (Trust Account 7)	8-11, Harumi 1-chome, Chuo-ku, Tokyo	16,012	0.84
Total	–	983,357	51.29

Note: Ownership Percentage of the Total Number of Issued Shares does not include treasury stock.

(7) Information on Voting Rights**i . Issued Shares**

As of March 31, 2019

<u>Classification</u>	<u>Number of Shares (shares)</u>	<u>Number of Voting Rights</u>	<u>Description</u>
Shares without Voting Rights	—	—	—
Shares with Restricted Voting Rights (treasury stock, etc.)	—	—	—
Shares with Restricted Voting Rights (others)	—	—	—
Shares with Full Voting Rights (treasury stock, etc.)	Treasury Stock: 32,997,700 shares of common stock Others: 36,800 shares of common stock	—	—
Shares with Full Voting Rights (others)	1,914,846,500 shares of common stock	19,148,459	—
Shares Representing Less than One Unit	2,513,470 shares of common stock	—	—
Number of Issued Shares	1,950,394,470 shares of common stock	—	—
Total Number of Voting Rights	—	19,148,459	—

Note: The total number of shares in “Shares with Full Voting Rights (others)” includes 28,900 shares held in the name of the Japan Securities Depository Center, and the number of shares in “Shares Representing Less Than One Unit” includes 44 shares held in the name of the Japan Securities Depository Center. “Number of Voting Rights” includes 289 voting rights associated with “Shares with Full Voting Rights” held in the name of the Japan Securities Depository Center, and does not include 6 voting rights associated with “Shares with Full Voting Rights” recorded on the shareholder register under NTT, but not actually owned by NTT.

ii. Treasury Stock

As of March 31, 2019

<u>Name of Shareholder</u>	<u>Address</u>	<u>Number of Shares Held Under Own Name (shares)</u>	<u>Number of Shares Held Under the Names of Others (shares)</u>	<u>Total Shares Held (shares)</u>	<u>Ownership Percentage to the Total Number of Issued Shares</u>
(Treasury Stock) Nippon Telegraph and Telephone Corporation	5-1, Otemachi 1-chome, Chiyoda-ku, Tokyo	32,997,700	—	32,997,700	1.7%
(Others) Nihon Meccs Corporation	6-3, Irifune 3-chome, Chuo-ku, Tokyo	36,800	—	36,800	0.0%
Total	—	33,034,500	—	33,034,500	1.7%

Notes: 1. In addition to the above, there are 600 shares that are recorded on the shareholder register under NTT, but not actually owned by NTT. Such shares are included in “Shares with Full Voting Rights (others)” under “Issued Shares” above.

2. Pursuant to the Board of Directors’ resolution on February 21, 2018, NTT acquired 29,178,000 shares of its outstanding common stock between March 5, 2018 and May 23, 2018. See Note 26 to the Consolidated Financial Statements- for additional details.

3. Pursuant to the Board of Directors’ resolution on November 6, 2018, NTT acquired 32,868,000 shares of its outstanding common stock between November 8, 2018 and January 11, 2019. See Note 26 to the Consolidated Financial Statements- for additional details.

2. Information on Acquisitions of Treasury Stock

Class of Shares: Acquisitions of common stock pursuant to Article 155, Paragraph 3 and Article 155, Paragraph 7 of the Companies Act of Japan

(1) Status of Acquisitions of Treasury Stock Pursuant to Resolutions at the General Meeting of Shareholders

Not applicable.

(2) Status of Acquisitions of Treasury Stock Pursuant to Resolutions at Meetings of the Board of Directors

Acquisitions pursuant to Article 155, Paragraph 3 of the Companies Act of Japan:

<u>Classification</u>	<u>Numbers of Shares (shares)</u>	<u>Total Amount (yen)</u>
Resolution of the Board of Directors of February 21, 2018 (Acquisition Period: February 22, 2018 to June 30, 2018)	31,000,000	150,000,000,000
Treasury stock acquired prior to the fiscal year ended March 31, 2019	8,400,000	42,010,087,100
Treasury stock acquired during the fiscal year ended March 31, 2019	20,778,000	107,989,838,400
Total number and value of remaining shares of treasury stock authorized	1,822,000	74,500
Percentage unused as of March 31, 2019 (%)	5.9	0.0
Treasury stock acquired during the current period	—	—
Percentage unused as of the filing date (%)	5.9	0.0

<u>Classification</u>	<u>Numbers of Shares (shares)</u>	<u>Total Amount (yen)</u>
Resolution of the Board of Directors of November 6, 2018 (Acquisition Period: November 7, 2018 to March 29, 2019)	36,000,000	150,000,000,000
Treasury stock acquired prior to the fiscal year ended March 31, 2019	—	—
Treasury stock acquired during the fiscal year ended March 31, 2019	32,868,000	149,999,824,700
Total number and value of remaining shares of treasury stock authorized	3,132,000	175,300
Percentage unused as of March 31, 2019 (%)	8.7	0.0
Treasury stock acquired during the current period	—	—
Percentage unused as of the filing date (%)	8.7	0.0

<u>Classification</u>	<u>Numbers of Shares (shares)</u>	<u>Total Amount (yen)</u>
Resolution of the Board of Directors of May 10, 2019 (Acquisition Period: May 13, 2019 to July 31, 2019)	53,000,000	250,000,000,000
Treasury stock acquired prior to the fiscal year ended March 31, 2019	—	—
Treasury stock acquired during the fiscal year ended March 31, 2019	—	—

<u>Classification</u>	<u>Numbers of Shares (shares)</u>	<u>Total Amount (yen)</u>
Total number and value of remaining shares of treasury stock authorized	–	–
Percentage unused as of March 31, 2019 (%)	–	–
Treasury stock acquired during the current period	24,600,000	118,829,434,500
Percentage unused as of the filing date (%)	53.6	52.5

(3) Description of Acquisitions of Treasury Stock Not Made Pursuant to Resolutions at the General Meeting of Shareholders or Meetings of the Board of Directors

Acquisitions pursuant to Article 155, Paragraph 7 of the Companies Act of Japan:

<u>Classification</u>	<u>Numbers of Shares (shares)</u>	<u>Total Amount (yen)</u>
Treasury stock acquired during the fiscal year ended March 31, 2019	37,070	181,877,007
Treasury stock acquired during the current period	4,503	21,215,535

Note: “Treasury stock acquired during the current period” does not include acquisitions of less-than-one-unit shares from June 1, 2019 to the date of the filing of this Annual Securities Report.

(4) Status of Dispositions and Holdings of Acquired Treasury Stock

<u>Classification</u>	<u>Fiscal year ended March 31, 2019</u>		<u>Current Period</u>	
	Number of Shares (shares)	Total Disposition Amount (yen)	Number of Shares (shares)	Total Disposition Amount (yen)
Acquired treasury stock offered to subscribers	–	–	–	–
Acquired treasury stock that was canceled	146,000,000	–	–	–
Acquired treasury stock that was transferred due to mergers, exchange offers or company split	–	–	–	–
Other (Sales through requests to purchase less-than-one-unit shares)	3,882	18,857,574	272	1,257,780
Total number of treasury stock held	32,997,746	–	55,504,893	–

Notes: 1. The amounts of treasury stock sold or otherwise disposed of during the current period does not include acquisitions of less-than-one-unit shares from June 1, 2019 to the date of the filing of this Annual Securities Report.

2. The total amount of treasury stock held does not include acquisitions of less-than-one-unit shares from June 1, 2019 to the date of the filing of this Annual Securities Report.

3. Dividend Policy

NTT has set the return of profits to shareholders while continuously improving corporate value as one of its important management challenges. With respect to shareholder returns, NTT has a basic policy of steady dividend increases. In addition, NTT will flexibly carry out buybacks based on performance trends and other factors in order to improve its capital efficiency.

NTT has a fundamental policy of distributing surplus twice a year, as interim and year-end dividends. The distribution of surplus is authorized by the general meeting of shareholders for year-end dividends, and by the Board of Directors for interim dividends. For the year ended March 31, 2019, pursuant to the dividend policy described above, the interim dividend was ¥85 per share and the year-end dividend was ¥95 per share, for a total dividend amount of ¥180 for the fiscal year.

While maintaining sound financial condition and as part of its capital policy to improve capital efficiency, NTT intends to use retained earnings for investments in new business opportunities.

NTT's Articles of Incorporation state, "The company shall, by resolution of the board of directors, be entitled to make distributions of surplus in accordance with Article 454, Paragraph 5 of the Companies Act to persons designated as pledgees of shares, as stipulated in Paragraph 1 of the preceding Article, by the notice served on the 30th day of September of each year from the transfer institution pursuant to Article 151, Paragraph 1 of the Book-Entry Transfer Act."

Dividend payments for the fiscal year ended March 31, 2019 were as follows:

<u>Date of Resolution</u>	<u>Total Amount of Dividends</u> (millions of yen)	<u>Dividends Per Share</u> (yen)
November 6, 2018 Resolution of the Board of Directors	165,774	85
June 25, 2019 Resolution of the General Meeting of Shareholders	182,153	95

4. Status of Corporate Governance

Forward-looking statements included herein are made as of the date of the filing of this Annual Securities Report.

(1) Overview of Corporate Governance

i . Basic Views of Corporate Governance

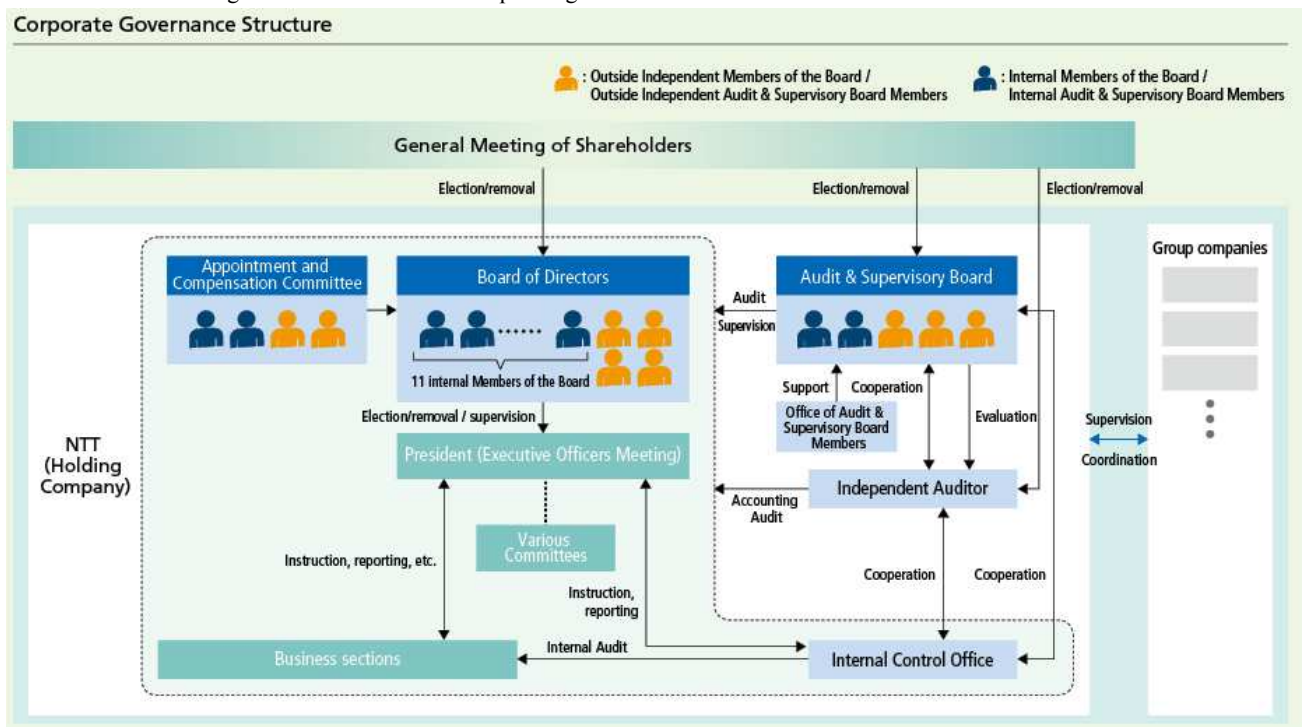
As the holding company of NTT Group, NTT believes that raising the effectiveness of corporate governance is an important management issue for meeting the expectations of various stakeholders, including shareholders and other investors, as well as customers, business partners, and employees, and for maximizing corporate value. Accordingly, NTT is working to strengthen corporate governance based on the purpose of the principles of the Corporate Governance Code promulgated by the Tokyo Stock Exchange. Based on NTT’s new “Your Value Partner 2025” Medium-Term Management Strategy, which was formulated and announced in November 2018, in order to work together with all its partners to promote initiatives to resolve social issues in its role as “Your Value Partner,” NTT will work towards ensuring sound management, executing appropriate decision-making and business activities, clarifying accountability, and maintaining thorough compliance as basic policies.

ii. Corporate Governance Structure

NTT, in order to strengthen functions for appropriately supervising and auditing business execution, seeks to strengthen its auditing system by appointing several outside independent Members of the Board, and by establishing an Audit & Supervisory Board, of which outside independent Audit & Supervisory Board Members make up a majority. Additionally, NTT has voluntarily established an Appointment and Compensation Committee, which consists of four Members of the Board, including two outside independent Members of the Board, to further increase the objectivity and transparency of decisions relating to appointment and compensation. NTT has determined that governance functions based on a Board of Corporate Auditors (Audit & Supervisory Board) are sufficiently effective to achieve this purpose.

Business execution at NTT is conducted in accordance with the organizational regulations governing the functions and operations of each organization. Important decisions are made under the supervision of the Board of Directors and based on the responsibility regulations that define the responsibilities and authorities for the president, senior executive vice presidents, and the head of each organization. In addition, NTT has established various meetings and committees as has been deemed necessary to discuss important matters related to corporate management and Group management in order to ensure that appropriate decisions are made for facilitating effective Group management.

The following chart illustrates NTT’s corporate governance structure:



Board of Directors

The Board of Directors consists of 15 Members of the Board, including four outside independent Members of the Board. In principle, the ordinary meetings of the Board of Directors are held once per month. In addition, extraordinary meetings are held as needed. The Board of Directors makes decisions on matters stipulated by law and on important matters related to company management and Group management. Moreover, through such means as periodic reports from Members of the Board on the status of business execution, the Board of Directors supervises the business execution of Members of the Board.

Audit & Supervisory Board

The Audit & Supervisory Board consists of a total of five Audit & Supervisory Board Members, comprising two internal Audit & Supervisory Board Members and three outside independent Audit & Supervisory Board Members (including two women, one in each category).

Appointment and Compensation Committee

For the purpose of improving objectivity and transparency in the decisions of appointments and compensation of Members of the Board, NTT has established on a non-statutory basis the Appointment and Compensation Committee, which consists of four Members of the Board, including two outside independent Members of the Board, as a preliminary review institution of the Board of Directors, and are increasing the effectiveness of governance.

In the fiscal year ended March 31, 2019, in addition to holding meetings of the Appointment and Compensation Committee three times, committee members also met to exchange opinions and ideas on multiple occasions and active discussions were held.

Executive Officers Meeting

Important corporate matters to be decided are, in principle and in advance, discussed by “Executive Officers Meetings,” which is made up of the president, senior executive vice presidents, full-time directors, and the heads of staff organizations. The Executive Officers Meeting is held about once a week. To improve the transparency of management decision-making, one Audit & Supervisory Board Member participates in the Executive Officers Meeting.

Various Committees

A number of committees have been established below the Executive Officers Meeting to discuss specific issues related to corporate and Group management strategies. Major committees include the Technology Strategy Committee, which deliberates on the Group’s R&D vision and technology development strategy; the Investment Strategy Committee, which examines investment projects that are larger than a certain scale; and the Finance Strategy Committee, which discusses basic financial strategies and financial issues. These committees, which are held as necessary throughout the year, are in principle chaired by the president or a senior executive vice president, and are attended by relevant Members of the Board and others.

iii. Other Things of Corporate Governance

(A) Status of Board of Directors

Composition of the Board of Directors

The Board of Directors is of a size appropriate to the Group’s business, and the composition of the Board of Directors reflects consideration for a balance of experience and specialties and for diversity. The Board of Directors has 15 Members of the Board, including four outside independent Members of the Board who have been appointed in order to strengthen functions for appropriately supervising business execution.

Please see “(2) Members of the Board” on page 83.

Activities of the Board of Directors

In principle, the ordinary meetings of the Board of Directors are held once per month. In addition, extraordinary meetings are held as needed. The Board of Directors makes decisions on matters stipulated by law and on important matters related to

company management and Group management. Moreover, through such means as periodic reports from Members of the Board on the status of business execution, the Board of Directors supervises the business execution of Members of the Board.

Evaluation of the Effectiveness of the Board of Directors

The Board of Directors of NTT, which is a pure holding company, plays the role of monitoring the specific business operations of the Group companies based on the medium- to long-term business strategy of the entire Group.

The Board of Directors of NTT decides important items related to the Group's management which have passed the "Executive Officers Meeting," made up of the president, senior executive vice presidents, full-time directors, and the heads of the staff organization, as well as the review of the various committees chaired by the president or a senior executive vice president and attended by the relevant directors, while also monitoring the status of the execution of the duties of the individual Members of the Board.

At the meetings of the Board of Directors, based on the authority of the individual Members of the Board, current issues in group management and the initiatives being taken to resolve them are reported and reviewed, and in the fiscal year ended March 31, 2019, active discussions were held centering on important matters related to company and group management, such as the formulation and release of the NTT Group Medium-Term Management Strategy "Your Value Partner 2025," and the establishment of a Global Holding Company and related transfer of subsidiaries. Furthermore, in addition to holding advance explanations for outside independent Members of the Board on matters discussed at previous meetings of the Board of Directors, in the fiscal year ended March 31, 2019, explanations of matters such as immediate issues and the status of considerations were also given by Representative Members of the Board after meetings of the Board of Directors. By striving to clarify the focus of execution of duties and the purpose of initiatives, we are working to strengthen the supervisory function of the Board of Directors.

Furthermore, to allow the outside independent Members of the Board to more deeply understand the Company's business, meetings were held to exchange ideas and opinions on the executives and individual management strategies of the major subsidiaries, and they attended exhibitions of the research and development which the Company is focusing its efforts into and received explanations on topics such as the results of cutting-edge research. Additionally, ideas and opinions on issues in Group management were exchanged among the outside independent Members of the Board and the Audit & Supervisory Board Members, among the outside independent Members of the Board and the Representative Members of the Board, among the outside independent Members of the Board and the executives of the major Group companies in and outside Japan, and among the outside independent Members of the Board of NTT and the outside independent Members of the Board of the major Group companies and other members.

In these meetings, we received opinions on NTT's Board of Directors from the outside independent Members of the Board and the Audit & Supervisory Board Members that adequate information is provided and Members of the Board engage in active discussion, thereby ensuring the Board's effectiveness.

Also, with the aim of strengthening corporate governance through continuous improvement of the effectiveness of the Board of Directors, in the fiscal year ended March 31, 2019, questionnaire surveys regarding the Board of Directors were conducted targeting all Members of the Board, and the effectiveness of the Board was evaluated. Questions were asked with regard to the role and responsibilities of the Board of Directors, its composition, and its operation, and the results, which were compiled through a third-party organization, confirmed that the Board was sufficiently fulfilling its important role and responsibilities, with a majority of positive opinions for about 80% of the questions.

Moreover, given that there were opinions that recommended increasing the number of outside Members of the Board and ensuring diversity among Members of the Board, three directors have been appointed after the General Meeting of Shareholders that was held on June 25, 2019, and as a result, the number of independent outside directors increased by two members, and two female directors were appointed for the first time.

Taking into account these initiatives, NTT has evaluated that the effectiveness of the Board of Directors is being ensured.

Appointment and Dismissal Policies and Procedure for Members of the Board

In terms of the composition of NTT's Board of Directors, the nomination of executives is based on the "NTT Group Personnel Policy," and personnel with the skills to resolve issues recognized by NTT Group are nominated broadly from inside and outside of the Group.

Outside Members of the Board and outside Audit & Supervisory Board Members are elected with the expectation that they can provide opinions based on a broad management perspective or as an expert. Furthermore, both non-outside and outside Members of the Board are elected in line with NTT Group's promotion of diversity. After the General Meeting of Shareholders held on June 25, 2019, three Members of the Board have been appointed, and as a result, the number of

independent outside Members of the Board has been increased by two members, and two female Members of the Board have been appointed for the first time. The ratio of outside Members of the Board is now 26.7%.

Furthermore, appointments and dismissals of Members of the Board are made upon deliberation by the Appointment and Compensation Committee, which consists of four Members of the Board, including two outside independent Members of the Board.

NTT Group strives to contribute to the resolution of social issues and the realization of a safer, more secure, and more affluent society. To accomplish this goal, the Group acts as a trusted “Value Partner” that customers continue to select in order to provide them with new value on a global basis. NTT has established the policy of positioning individuals that share these ideals in the upper ranks of NTT Group’s management, and NTT is electing such individuals from both inside and outside the Group.

In regard to Member of the Board candidates, individuals are elected based on the broad-ranging perspective and experience, superior management skill and leadership, business sense and motivation necessary to contribute to the overall development of NTT Group in order to facilitate the improvement of NTT Group’s corporate value. The Board of Directors is of a size appropriate to the Group’s business, and the composition of the Board of Directors takes into account a balance of specialties and diversity.

From the perspective of strengthening the function of supervising business execution, for outside independent Members of the Board, NTT elects individuals who present no risk of a conflict of interest with general shareholders. In principle, NTT appoints several outside independent Members of the Board.

With regard to the nomination of Members of the Board, NTT has established the Appointment and Compensation Committee, which consists of four Members of the Board including two outside independent Members of the Board. The committee discusses candidates and then makes proposals to be approved by the Board of Directors and presented for voting at the General Meeting of Shareholders.

Succession Plan

With respect to successor candidates for the CEO position, NTT views it as important to secure successor candidates who can respond to technological innovation, market trends, and the speed of changes in the business environment. By securing the diversity of candidates through offering experience of a broad range of jobs and appointments to important posts, NTT is cultivating personnel for promotion who, in addition to possessing integrity and insight, are exceptionally well-suited to the times. The decision regarding the appointment is made by the Board of Directors after it has been presented for deliberation to the Appointment and Compensation Committee, which consists of four Members of the Board including two outside independent Members of the Board.

Support System for Members of the Board

The secretariat of the Board of Directors is made available as a venue of contact for outside independent Members of the Board, which they can use to receive support with regard to their daily duties through explanations, responses to inquiries about business execution, and other means.

Number of Members of the Board

NTT’s Articles of Incorporation state that the number of Members of the Board shall be 15 people or fewer.

Requirements for Resolutions to Appoint Members of the Board

NTT’s Articles of Incorporation state that resolutions to appoint Members of the Board may be made by a majority of shareholders present if they represent at least one-third (1/3) of the total voting rights of the shareholders who can exercise their voting rights. NTT’s Articles of Incorporation further state that such resolutions are not subject to cumulative voting.

(B) Audit & Supervisory Board Members

Please see “(3) Audit & Supervisory Board, Independent Auditor and Internal Control” on page 95.

(C) Others

Overview of Internal Control Systems

NTT has established the Basic Policies Concerning the Maintenance of Internal Control Systems for NTT Group, which was approved via resolution by the Board of Directors. The basic concepts of these policies are as follows.

1. NTT shall develop a system of internal controls by taking measures for the prevention and minimization of losses, with the objectives of ensuring compliance with legal requirements, managing risks, and achieving appropriate and efficient business operations.
2. NTT shall establish the Internal Control Office, which oversees the establishment of internal control rules and frameworks. The Internal Control Office shall evaluate the effectiveness of the internal control systems based on internal audits regarding high risk matters affecting the entire NTT Group, and shall make sure that necessary corrective measures and improvements are implemented.
3. NTT shall also take appropriate measures to ensure the reliability of its internal control systems for financial reporting based on the Financial Instruments and Exchange Act.
4. As a chief executive officer, the president shall be responsible for ensuring the development and operation of the internal control systems.

Training for Members of the Board and Audit & Supervisory Board Members

NTT Group works to cultivate candidates suitable for top management who are able to respond to the rapidly changing management environment, by creating a range of training opportunities in areas including domestic and overseas economic and social issues, compliance, and risk management, and by allowing employees to accumulate new job experiences. Additionally, outside independent Members of the Board can gain a deeper understanding of NTT's group businesses through opportunities to deepen their understanding of the business trends of Group companies and of the latest R&D results at the research facilities of NTT.

Contracts Limiting the Liabilities for Damages

Contracts limiting the liabilities for damages in Article 423 (1) of the Companies Act of Japan are put in place between NTT and outside Members of the Board and Audit & Supervisory Board Members based on Article 427 (1) of the same act. Under these contracts, the maximum amount of liability for damages is defined as the lowest amount of liability set forth in Article 425 (1) of the Companies Act.

Shareholder Meeting Matters that May Be Resolved by the Board of Directors

NTT's Articles of Incorporation state that NTT may purchase its own shares in open market transactions or otherwise pursuant to resolutions of the Board of Directors. This is intended to enable a flexible capital policy that is responsive to the current business environment.

NTT's Articles of Incorporation state that, in accordance with the provisions of Article 454, Paragraph 5 of the Companies Act of Japan, NTT may declare interim dividends with a record date of September 30 each year pursuant to resolutions of the Board of Directors. This is intended to enable the expeditious return of profits to shareholders.

NTT's Articles of Incorporation state that NTT may exempt Members of the Board and Audit & Supervisory Board Members for liabilities to the extent permitted by law pursuant to resolutions of the Board of Directors. This is intended to enable Members of the Board and Audit & Supervisory Board Members to fully engage in their expected roles when fulfilling their responsibilities.

Special Resolution Requirements for Shareholder Meetings

NTT's Articles of Incorporation state that, with respect to resolutions set forth in Article 309, Paragraph 2 of the Companies Act of Japan, resolutions may be adopted by at least two-thirds (2/3) of the voting rights of the shareholders who are present at such shareholder meetings if they represent at least one-third (1/3) of the total voting rights of the shareholders who can exercise their voting rights. This is intended to enable the more reliable satisfaction of quorum requirements.

Overview of Internal Compliance Systems:

Establishment of NTT Group Corporate Ethics Charter

It is imperative to conduct business in compliance with laws and regulations, and maintain high ethical standards in order to promote sound corporate activities. Recognizing this, NTT drew up the NTT Group Corporate Ethics Charter in November 2002.

The NTT Group Corporate Ethics Charter, which applies to all officers and employees of the NTT Group, lays out the basic principles of corporate ethics and provides specific guidelines for ethical behavior. The stipulations in the guidelines are intended to remind everyone of their duty as members of a large corporate group that bears responsibility to society in terms of preventing dishonesty, misconduct, and the disclosure of corporate secrets, as well as refraining from exchanging excessive favors with customers and suppliers, and ensuring that they conduct themselves according to the highest ethical standards in both private and public activities.

Initiatives to Promote Awareness of the NTT Group Corporate Ethics Charter

To ensure the effectiveness of the NTT Group Corporate Ethics Charter, we offer training sessions on corporate ethics to employees, and through a website for employees, we explain the NTT Group Corporate Ethics Charter in detail and give examples of corporate ethics issues in an effort to raise employee's level of understanding. Furthermore, NTT conducts annual surveys of employees to measure their awareness, and the results are then used for awareness enhancement initiatives.

Establishment of Corporate Ethics Help Line (Outside of the Company)

To prevent illegal conduct or a scandal, each Group company has set up an internal consulting center to handle reports of improper activities. In addition, NTT has established the Corporate Ethics Help Line as an external contact point for NTT Group companies and outsources its operation to a law firm.

The content of the consultations and reports are investigated and handled by the staff member in charge, and a report is submitted to the Corporate Ethics Committee of each Group company. All reports are collected at least once a year by NTT, where the response status is ascertained and reported to the Board of Directors.

Furthermore, the NTT Group Corporate Ethics Charter clearly states that people who file reports with these help lines will be protected from any disadvantage arising from the fact that they filed a report.

In addition, NTT Group has established and operates an independent reporting route to Audit & Supervisory Board Members as a contact point that is independent from management. In general, reports made through external reporting lines are also simultaneously sent directly to Audit & Supervisory Board Members, and it is also possible to make reports directly to Audit & Supervisory Board Members only.

Prevention of Bribery

Understanding that it is essential to comply with laws and regulations and to operate its business with high ethical standards, NTT Group prohibits all forms of corruption, including bribery, improper benefits and facilitation payments*. In particular, with respect to the prevention of bribery, NTT Group has created a "Anti-Bribery Handbook" and distributed it to employees of Group companies, including its overseas subsidiaries, and has also posted the handbook on its internal website to ensure thorough awareness. Furthermore, for NTT, NTT East and NTT West, bribery is prohibited pursuant to the NTT Act, and any violations are subject to legal penalties.

* Note: "Facilitation payments" are small payments made for purposes of facilitating procedures for ordinary administrative services.

Collaboration with Suppliers

NTT has established and announced the "Supply Chain CSR Promotion Guidelines" in order to fulfill its social responsibility by following social norms and laws with all of its suppliers against wrongful actions in the supply chain, including bribery. Through these Supply Chain CSR Promotion Guidelines, NTT is working to prevent misconduct, including among suppliers, by requesting compliance with statements such as "maintain a clean and normal relationship with the government and administration, and do not engage in bribery, illegal political contributions or other such misconduct" and "do not engage in the exchange of inappropriate profits in relationships with stakeholders."

***Promotion of Risk Management:
Business Risk Management***

NTT has established Risk Management Rules stipulating basic policies on risk management with the aims of, among others, anticipating and preventing the materialization of potential risks and minimizing losses if any risk materializes. Chaired by a senior executive vice president, the Business Risk Management Committee spearheads efforts to develop and operate a PDCA cycle for managing risks. During the fiscal year under review, the committee held one meeting during which discussions involved identifying risks that could potentially have a Companywide impact, policies for managing such risks, and other such matters.

NTT has also formulated the NTT Group Business Risk Management Manual, and distributed it to each Group company, in order to facilitate Group-wide risk management initiatives. On the basis of the manual, which stipulates matters that include proactive measures for potential risks, collaborative Group-wide approaches and policies for addressing risks that materialize, and pathways for communicating information, systems have been developed and implemented that enable swift action to be taken.

Risk Analysis and Identification of Key Risks

From time to time, NTT reviews assumed risks and management policies based on changes in the social environment. In the identification of risks, the Business Risk Management Committee plays the central role. Analysis processes for the risks faced by NTT Group are formulated, and risk analysis is periodically implemented in accordance with these processes. In this way, Companywide risks are identified. In addition, correlation analyses are implemented for these risks. Those risks with the potential to have the greatest influence are specified as "material risks," and countermeasures are formulated. Please see page 20 for further discussion of risks, including risks related to NTT's business.

Dialogue with Shareholders and Other Investors:

NTT promotes management that prioritizes discussions with shareholders, which not only includes discussions at General Meetings of Shareholders but also involves senior management, including the president, actively promoting discussions with shareholders about medium-term management strategies, corporate governance, business performance trends, and other topics through one-on-one meetings with institutional investors and briefings targeting individual investors. The opinions received from shareholders through such discussions are shared in the Company. NTT considered and formulated the "Your Value Partner 2025" Medium-Term Management Strategy that was announced in November 2018 in light of shareholder opinions.

During discussions with shareholders, insider information is strictly controlled, and information is proactively disclosed with due consideration to fair disclosure (timely, fair, and impartial information disclosure). To increase convenience for overseas investors, we strive to release Japanese- and English-language disclosure materials at the same time. The Japanese- and English-language versions of the entire Notice of Convocation for the Ordinary General Meeting of Shareholders, including the business report, were released at the same time, more than one month prior to the date of the Ordinary General Meeting of Shareholders.

Policy for Constructive Dialogue with Shareholders and Other Investors

• Appointment of Executives/Members of the Board

The Head of Finance and Accounting is responsible for communications with investors, and the IR office is established within the Finance and Accounting Department.

• Measures to Ensure Positive Cooperation between Internal Departments

The Finance Strategy Committee takes steps to enhance communications based on cooperation with related departments, such as periodically discussing the settlement of accounts.

• Promotion of Opportunities for Dialogue

In addition to one-on-one meetings, we hold briefings, etc., in accordance with themes that reflect investor needs.

- ***Appropriate and Effective Feedback***

Input from shareholders and other investors is shared with management and Group companies and is used to enhance communications.

- ***Control of Insider Information***

We are implementing information disclosure in a fair and impartial manner in accordance with our disclosure policy.

Initiatives to Enhance Dialogue (fiscal year ended March 31, 2019)

For institutional investors:

- Implementing quarterly financial results presentations (4 times)
- Participating in IR conferences in Japan and overseas (8 times)
- Holding NTT IR DAY (briefing for institutional investors, 1 time)
- Implementing one-on-one briefings in Japan and overseas (total of more than 350 times) (topics: medium-term management strategy, financial results, corporate governance, etc.)

For individual investors:

- Implementing Company briefings (17 times) (including 4 company briefings by senior executives)
- Implementing online Company briefings (2 times)
- Participating in individual investor fairs (1 time)

(2) Members of the Board

i . Member List

Composition: 16 men and 4 women (percentage of women: 20.0%)

<u>Position Responsibility</u>	<u>Name</u>	<u>Date of Birth</u>	<u>Brief Career Summary</u>	<u>Term</u>	<u>Share Ownership (shares)</u>
Chairman of the Board	Hiomichi Shinohara	March 15, 1954	<p>April 1978: Joined Nippon Telegraph and Telephone Public Corporation</p> <p>June 2009: Senior Vice President Head of Research and Development Planning Member of the Board of the Company</p> <p>June 2011: Senior Vice President Head of Research and Development Planning Head of the Information Sharing Laboratory Group Member of the Board of the Company</p> <p>October 2011: Senior Vice President Head of Research and Development Planning Member of the Board of the Company</p> <p>June 2012: Executive Vice President Head of Research and Development Planning Member of the Board of the Company</p> <p>June 2014: Senior Executive Vice President Head of Research and Development Planning Representative Member of the Board of the Company</p> <p>June 2018: Chairman of the Board of the Company (present post)</p>	Note 3	19,600
President and Chief Executive Officer; Representative Member of the Board	Jun Sawada	July 30, 1955	<p>April 1978: Joined Nippon Telegraph and Telephone Public Corporation</p> <p>June 2008: Senior Vice President Executive Manager of Corporate Strategy Planning Department Member of the Board of NTT Communications Corporation</p> <p>June 2011: Executive Vice President Executive Manager of Corporate Strategy Planning Department Member of the Board of NTT Communications Corporation</p> <p>June 2012: Senior Executive Vice President Executive Manager of Corporate Strategy Planning Department Representative Member of the Board of NTT Communications Corporation</p> <p>June 2013: Senior Executive Vice President Representative Member of the Board of NTT Communications Corporation</p> <p>June 2014: Senior Executive Vice President Representative Member of the Board of the Company</p> <p>June 2018: President and Chief Executive Officer Representative Member of the Board of the Company (present post)</p> <p>August 2018: President and Chief Executive Officer Representative Member of the Board of NTT, Inc. (present post)</p>	Note 3	15,400

<u>Position Responsibility</u>	<u>Name</u>	<u>Date of Birth</u>	<u>Brief Career Summary</u>	<u>Term</u>	<u>Share Ownership (shares)</u>
Senior Executive Vice President; Representative Member of the Board In charge of business strategy and risk management	Akira Shimada	December 18, 1957	<p>April 1981: Joined Nippon Telegraph and Telephone Public Corporation</p> <p>June 2007: Vice President of Corporate Strategy Planning of the Company</p> <p>July 2007: General Manager of the Accounts and Finance Department of Nippon Telegraph and Telephone West Corporation</p> <p>July 2009: General Manager of the General Affairs and Personnel Department of Nippon Telegraph and Telephone East Corporation</p> <p>June 2011: Senior Vice President General Manager of the General Affairs and Personnel Department Member of the Board of Nippon Telegraph and Telephone East Corporation</p> <p>June 2012: Senior Vice President Head of the General Affairs Member of the Board of the Company</p> <p>June 2015: Executive Vice President Head of General Affairs Member of the Board of the Company</p> <p>June 2018: Senior Executive Vice President Representative Member of the Board of the Company (present post)</p> <p>August 2018: Senior Executive Vice President of NTT, Inc. (present post)</p>	Note 3	9,804

<u>Position Responsibility</u>	<u>Name</u>	<u>Date of Birth</u>	<u>Brief Career Summary</u>	<u>Term</u>	<u>Share Ownership (shares)</u>
Senior Executive Vice President; Representative Member of the Board In charge of technical strategy and international standardization	Motoyuki Ii	November 17, 1958	<p>April 1983: Joined Nippon Telegraph and Telephone Public Corporation</p> <p>June 2011: Senior Vice President Executive Manager of the Plant Department of the Network Business Headquarters Executive Manager of the Planning Department of the Network Business Headquarters Member of the Board of Nippon Telegraph and Telephone East Corporation</p> <p>July 2013: Senior Vice President Executive Manager of the Plant Planning Department of the Network Business Headquarters Member of the Board of Nippon Telegraph and Telephone East Corporation</p> <p>June 2014: Senior Vice President Senior Executive Manager of the Corporate Sales Promotion Headquarters Member of the Board of Nippon Telegraph and Telephone East Corporation</p> <p>June 2015: Executive Vice President Senior Executive Manager of the Corporate Sales Promotion Headquarters Representative Member of the Board of Nippon Telegraph and Telephone East Corporation</p> <p>June 2016: Senior Executive Vice President Senior Executive Manager of the Corporate Sales Promotion Headquarters Representative Member of the Board of Nippon Telegraph and Telephone East Corporation</p> <p>July 2017: Senior Executive Vice President Senior Executive Manager of the Business Innovation Headquarters Representative Member of the Board of Nippon Telegraph and Telephone East Corporation</p> <p>June 2018: Senior Executive Vice President Head of Technology Planning Representative Member of the Board of the Company</p> <p>June 2019: Senior Executive Vice President Representative Member of the Board of the Company (present post)</p>	Note 3	6,900
Executive Vice President Head of Global Business	Tsunehisa Okuno	October 12, 1960	<p>April 1983: Joined Nippon Telegraph and Telephone Public Corporation</p> <p>July 2007: Vice President of the Corporate Business Strategy of the Company</p> <p>June 2008: Head of the Global Business Strategy Office of Strategic Business Development of the Company</p> <p>January 2011: Senior Vice President of Dimension Data Holdings plc (present post)</p> <p>June 2011: Head of Global Business of the Company</p> <p>June 2012: Senior Vice President Head of Global Business Member of the Board of the Company</p> <p>June 2016: Director of NTT Security Corporation (present post)</p> <p>June 2018: Executive Vice President Head of Global Business Member of the Board of the Company (present post)</p> <p>August 2018: Member of the Board of NTT, Inc. (present post)</p>	Note 3	6,300

<u>Position Responsibility</u>	<u>Name</u>	<u>Date of Birth</u>	<u>Brief Career Summary</u>	<u>Term</u>	<u>Share Ownership (shares)</u>
Executive Vice President Head of Strategic Business Development In charge of 2020 Project	Hiroki Kuriyama	May 27, 1961	April 1985: Joined the Company February 2003: Vice President of Department I of the Company May 2005: Vice President of Corporate Business Strategy of the Company June 2008: Vice President of Corporate Strategy Planning of the Company June 2012: Vice President of the President's Office of General Affairs of the Company June 2014: Senior Vice President Head of Strategic Business Development Member of the Board of the Company June 2019: Executive Vice President Head of Strategic Business Development Member of the Board of the Company (present post)	Note 3	5,170
Senior Vice President Head of Finance and Accounting	Takashi Hiroi	February 13, 1963	April 1986: Joined the Company May 2005: Vice President of Corporate Business Strategy of the Company June 2008: Vice President of Strategic Business Development of the Company July 2009: Vice President of Corporate Strategy Planning of the Company June 2014: Head of Finance and Accounting of the Company June 2015: Senior Vice President Head of Finance and Accounting Member of the Board of the Company (present post)	Note 3	4,500
Senior Vice President Head of General Affairs	Eiichi Sakamoto	September 3, 1963	April 1986: Joined the Company October 2005: Head of the Business Management Group of the Corporate Strategy Planning Department of Nippon Telegraph and Telephone East Corporation July 2009: Head of the Planning Group of the Corporate Strategy Planning Department of Nippon Telegraph and Telephone East Corporation July 2011: Head of Public Relations of Corporate Strategy Planning of the Company June 2015: Senior Vice President, Managing Director of the Corporate Marketing Strategy Department of NTT DOCOMO, INC. June 2016: Senior Vice President Head of the Corporate Strategy Planning of the Company Member of the Board of the Company Member of the Board of Nippon Telegraph and Telephone East Corporation (present post) June 2018: Senior Vice President Head of General Affairs Member of the Board of the Company (present post)	Note 3	4,000

<u>Position Responsibility</u>	<u>Name</u>	<u>Date of Birth</u>	<u>Brief Career Summary</u>	<u>Term</u>	<u>Share Ownership (shares)</u>
Senior Vice President Head of Research and Development Planning	Katsuhiko Kawazoe	September 5, 1961	<p>April 1987: Joined the Company</p> <p>August 2003: Senior Research Engineer of the Cyberspace Laboratories of the Cyber Communications Laboratory Group of the Company</p> <p>October 2007: Senior Research Engineer of the Cyber Solutions Laboratories of the Cyber Communications Laboratory Group of the Company</p> <p>July 2008: Vice President of Research and Development Planning of the Company</p> <p>July 2014: Head of the Service Evolution Laboratories of the Service Innovation Laboratory Group of the Company</p> <p>July 2016: Head of the Service Innovation Laboratory Group of the Company</p> <p>June 2018: Senior Vice President Head of Research and Development Planning Member of the Board of the Company (present post)</p>	Note 3	2,200
Senior Vice President Head of Corporate Strategy Planning	Ryota Kitamura	January 20, 1965	<p>April 1988: Joined the Company</p> <p>October 2003: Senior Manager of the Corporate Strategy Planning Department of Nippon Telegraph and Telephone East Corporation</p> <p>June 2011: Head of the Marketing Strategy Group of the Corporate Strategy Planning Department of Nippon Telegraph and Telephone East Corporation</p> <p>July 2015: Vice President of Corporate Strategy Planning of the Company</p> <p>June 2018: Member of the Board of Nippon Telegraph and Telephone West Corporation (present post) Senior Vice President Head of the Corporate Strategy Planning of the Company Member of the Board of the Company (present post)</p>	Note 3	1,800
Senior Vice President Head of Technology Planning	Atsuko Oka	October 18, 1963	<p>April 1988: Joined the Company</p> <p>August 2006: Director of IP Service Department of the Net Business Division of NTT Communications Corporation</p> <p>July 2010: Representative Director and President of NTT NaviSpace Corporation</p> <p>July 2012: Director of Integrated Customer Portal Taskforce of the Corporate Strategy Planning Department of NTT Communications Corporation</p> <p>August 2015: Vice President of IoT Office of the Corporate Strategy Planning Department of NTT Communications Corporation</p> <p>July 2017: General Manager of Business Platform Division Member of the Board of NTT Resonant Incorporated</p> <p>October 2017: General Manager of Solutions Business Division Member of the Board of NTT Resonant Incorporated</p> <p>June 2019: Senior Vice President Head of Technology Planning of the Company Member of the Board of the Company (present post)</p>	Note 4 Note 6	0

<u>Position Responsibility</u>	<u>Name</u>	<u>Date of Birth</u>	<u>Brief Career Summary</u>	<u>Term</u>	<u>Share Ownership (shares)</u>
Outside Member of the Board	Katsuhiko Shirai	September 24, 1939	<p>April 1965: Assistant of the First Faculty of Science and Engineering of Waseda University</p> <p>April 1968: Full-time lecturer of the Faculty of Science and Engineering of Waseda University</p> <p>April 1970: Assistant Professor of the Faculty of Science and Engineering of Waseda University</p> <p>April 1975: Professor of the Faculty of Science and Engineering of Waseda University</p> <p>November 1994: Director of Academic Affairs and Director of the International Exchange Center of Waseda University</p> <p>November 1998: Executive Director of Waseda University</p> <p>November 2002: President of Waseda University</p> <p>November 2010: Educational Advisor of Waseda University</p> <p>April 2011: Chairperson of the Foundation for the Open University of Japan</p> <p>June 2012: Member of the Board of the Company (present post)</p> <p>June 2012: Director of Japan Display, Inc. (present post)</p> <p>November 2016: Honorary Advisor of Waseda University (present post)</p>	Note 1 Note 3	4,300
Outside Member of the Board	Sadayuki Sakakibara	March 22, 1943	<p>April 1967: Joined Toyo Rayon Co., Ltd. (currently registered as Toray Industries, Inc.)</p> <p>June 1994: Director of the Corporate Planning Department of Toray Industries, Inc.</p> <p>June 1996: Director of the Board of Toray Industries, Inc.</p> <p>June 1998: Managing Director of Toray Industries, Inc.</p> <p>June 1999: Senior Managing Director of Toray Industries, Inc.</p> <p>June 2001: Executive Vice President of Toray Industries, Inc.</p> <p>June 2002: President of Toray Industries, Inc.</p> <p>June 2010: Chairman and Representative Member of the Board of Toray Industries, Inc. Director of the Board of Mitsui O.S.K. Lines, Ltd.</p> <p>June 2012: Member of the Board of the Company (present post)</p> <p>June 2013: Director of Hitachi, Ltd.</p> <p>June 2014: Chairman of the Japan Business Federation (Keidanren)</p> <p>June 2014: Chairman of the Board of Directors, Toray Industries, Inc.</p> <p>June 2015: Chief Senior Adviser and Chief Senior Counselor of Toray Industries, Inc.</p> <p>June 2017: Senior Adviser of Toray Industries, Inc.</p> <p>August 2018: Special Adviser of Toray Industries, Inc. (present post)</p> <p>March 2019: Outside Director of SHIMANO INC. (present post)</p> <p>May 2019: Outside Director of Nitori Holdings Co., Ltd. (present post)</p>	Note 1 Note 3	9,500

<u>Position Responsibility</u>	<u>Name</u>	<u>Date of Birth</u>	<u>Brief Career Summary</u>	<u>Term</u>	<u>Share Ownership (shares)</u>
Outside Member of the Board	Ken Sakamura	July 25, 1951	<p>April 2000: Professor of the Interfaculty Initiative in Information Studies and the Graduate School of Interdisciplinary Information Studies of the University of Tokyo</p> <p>January 2002: Director of YRP Ubiquitous Networking Laboratory (present post)</p> <p>April 2009: Director of Institute of Infrastructure Application of Ubiquitous Computing of the Interfaculty Initiative in Information Studies of the University of Tokyo</p> <p>October 2014: President of Vitalizing Local Economy Organization by Open Data & Big Data (present post)</p> <p>April 2017: Professor and Dean of Faculty of Information Networking for Innovation and Design of Toyo University (present post) Head of collaboration Hub for University and Business of Toyo University</p> <p>June 2017: Emeritus Professor of the University of Tokyo (present post)</p> <p>June 2019: Member of the Board of the Company (present post)</p>	Note 1 Note 4	300
Outside Member of the Board	Keiko Takegawa	April 23, 1958	<p>July 2008: Director-General for Policies on Cohesive Society and Minister's Secretariat of Cabinet Office</p> <p>July 2009: Director-General for Gender Equality Bureau of Cabinet Office</p> <p>December 2012: Director-General of the Public Relations Office of Cabinet Office</p> <p>July 2014: Director of the Gender Equality Bureau of Cabinet Office</p> <p>April 2019: Professor of Showa Women's University (present post)</p> <p>June 2019: Member of the Board of the Company (present post)</p>	Note 1 Note 4	0

<u>Position Responsibility</u>	<u>Name</u>	<u>Date of Birth</u>	<u>Brief Career Summary</u>	<u>Term</u>	<u>Share Ownership (shares)</u>
Audit & Supervisory Board Member	Akiko Ide	February 28, 1955	<p>April 1977: Joined Nippon Telegraph and Telephone Public Corporation</p> <p>June 2003: General Manager of Customer Services of NTT DOCOMO, INC.</p> <p>September 2004: Concurrently General Manager of Customer Services and General Manager of Information Security of NTT DOCOMO, INC</p> <p>June 2005: General Manager of Customer Services of NTT DOCOMO, INC.</p> <p>April 2006: General Manager of Corporate Citizenship Department of NTT DOCOMO, INC.</p> <p>June 2006: Executive Director and General Manager of Corporate Citizenship Department of NTT DOCOMO, INC.</p> <p>July 2008: Executive Director and General Manager for Chugoku regional office of NTT DOCOMO, INC.</p> <p>June 2012: Executive Director and Director of Information Security of NTT DOCOMO, INC.</p> <p>May 2013: President and Chief Executive Officer of Radishbo-ya Co., Ltd.</p> <p>June 2013: Executive Director and Senior Manager in Charge of Commerce Business Promotion of NTT DOCOMO, INC.</p> <p>June 2014: Full Time Audit & Supervisory Board Member of the Company (present post)</p> <p>August 2018: Audit & Supervisory Board Member of NTT, Inc. (present post)</p>	Note 5	10,200
Audit & Supervisory Board Member	Takao Maezawa	October 24, 1955	<p>April 1978: Joined Nippon Telegraph and Telephone Public Corporation</p> <p>June 2006: Executive Manager of Human Resources Management Department, General Manager of Training Institute Executive Manager of the General Affairs of NTT Communications Corporation</p> <p>June 2008: Senior Vice President Deputy General Manager of the Enterprise Business Division Member of the Board of NTT Communications Corporation</p> <p>June 2011: Executive Vice President Deputy General Manager of the Enterprise Business Division Member of the Board of NTT Communications Corporation</p> <p>August 2011: Executive Vice President Head of Second Sales Division Member of the Board of NTT Communications Corporation</p> <p>June 2012: President and CEO of NTT PC Communications Incorporated</p> <p>June 2016: Full Time Audit & Supervisory Board Member of the Company (present post)</p> <p>August 2018: Audit & Supervisory Board Member of NTT, Inc. (present post)</p>	Note 5	9,704

<u>Position Responsibility</u>	<u>Name</u>	<u>Date of Birth</u>	<u>Brief Career Summary</u>	<u>Term</u>	<u>Share Ownership (shares)</u>
Outside Audit & Supervisory Board Member	Takashi Iida	September 5, 1946	<p>April 1974: Registered as attorney-at-law (Daini Tokyo Bar Association) (registration up-to-date) Joined Mori Sogo Law Offices (currently Mori Hamada & Matsumoto)</p> <p>April 1991: Deputy Chairman of the Daini Tokyo Bar Association</p> <p>April 1997: Executive Governor of the Japan Federation of Bar Associations</p> <p>April 2006: Chairman of the Daini Tokyo Bar Association</p> <p>April 2006: Vice President of the Japan Federation of Bar Associations</p> <p>January 2012: Established Kowa Law Office (present post)</p> <p>June 2012: Corporate Auditor (Part-Time) for Shimadzu Corporation (present post)</p> <p>June 2013: Corporate Auditor of JAFCO Co., Ltd</p> <p>June 2013: Outside Director of Alps Electric Co., Ltd. (currently ALPS ALPINE CO., LTD.) (present post)</p> <p>June 2014: Outside Audit & Supervisory Board Member of the Company (present post)</p>	Note 2 Note 5	3,200
Outside Audit & Supervisory Board Member	Hideki Kanda	September 24, 1953	<p>April 1977: Research Assistant of Faculty of Law of the University of Tokyo</p> <p>April 1980: Lecturer of Faculty of Law of Gakushuin University</p> <p>April 1982: Associate Professor of Faculty of Law of Gakushuin University</p> <p>April 1988: Associate Professor of Faculty of Law of the University of Tokyo</p> <p>April 1991: Associate Professor of Graduate Schools for Law and Politics of the University of Tokyo</p> <p>May 1993: Professor of Graduate Schools for Law and Politics of the University of Tokyo</p> <p>April 2016: Professor of Professional School of Law (Law School) of Gakushuin University (present post)</p> <p>June 2016: Emeritus Professor of the University of Tokyo (present post)</p> <p>June 2017: Director of Sumitomo Mitsui Trust Bank, Limited (present post)</p> <p>June 2019: Outside Audit & Supervisory Board Member of the Company (present post)</p>	Note 2 Note 5	0
Outside Audit & Supervisory Board Member	Kaoru Kashima	January 20, 1958	<p>November 1981: Joined Showa Audit Corporation (currently Ernst & Young ShinNihon LLC)</p> <p>April 1985: Registered as a certified public accountant (registration up-to-date)</p> <p>June 1996: Partner of Showa Ota & Co. (currently Ernst & Young ShinNihon LLC)</p> <p>June 2002: Senior Partner of ShinNihon & Co. (currently Ernst & Young ShinNihon LLC) (present post)</p> <p>July 2006: In charge of personnel of HR Development Headquarters of ShinNihon & Co.</p> <p>September 2010: Managing Director of Ernst & Young ShinNihon LLC In charge of Corporate Culture Promotion Office In charge of Public Relations Office</p> <p>July 2012: General Manager of Knowledge Headquarters Managing Director of Ernst & Young ShinNihon LLC</p> <p>July 2013: Representative Director of Ernst & Young Institute Co., Ltd.</p> <p>June 2019: Outside Audit & Supervisory Board Member of the Company (present post)</p>	Note 2 Note 5 Note 7	0
Total					112,878

- Notes:1. Mr. Katsuhiko Shirai , Mr. Sadayuki Sakakibara, Mr. Ken Sakamura and Ms. Keiko Takegawa are Outside Members of the Board.
2. Mr. Takashi Iida, Mr. Hideki Kanda and Ms. Kaoru Kashima are Outside Audit & Supervisory Board Members.
3. The length of term for Members of the Board is two years following the June 26, 2018 Ordinary General Meeting of Shareholders.
4. The length of term for Members of the Board is one year following the June 25, 2019 Ordinary General Meeting of Shareholders.
5. The length of term for Audit & Supervisory Board Members is four years following the June 25, 2019 Ordinary General Meeting of Shareholders.
6. The surname of Atsuko Oka is Sumi in the family register.
7. The surname of Kaoru Kashima is Taya in the family register.

(2) Outside Members of the Board and Audit & Supervisory Board Members

Nomination Policies and Procedure for Outside Members of the Board and Audit & Supervisory Board Members

From the perspectives of strengthening supervising functions for execution and guaranteeing appropriate audits of the execution of duties by Members of the Board, NTT has the policy of selecting individuals to serve as outside Members of the Board and outside Audit & Supervisory Board Members who do not represent risks of conflicts of interest with general shareholders. NTT designates outside Members of the Board and outside Audit & Supervisory Board Members who fulfill both the independence criteria stipulated by Tokyo Stock Exchange, Inc., and NTT's own independence standards as outside independent Members of the Board or outside independent Audit & Supervisory Board Members.

Independence Standards for the Independent Directors/ Audit & Supervisory Board Members (Kansayaku)

In order to meet the independence standards, a person may not fall under any of the categories below in the last three fiscal years:

- (1) A person who executes business in a partner company that exceeds NTT's standards ⁽¹⁾
- (2) A person who executes business in a lending company that exceeds NTT's standards ⁽²⁾
- (3) A consultant, accountant, lawyer, or any other person providing professional services, who received monetary payments or any other gain in assets equal to or more than ¥10 million, excluding the Board Members' or Audit & Supervisory Board Members' compensation, from NTT or its major subsidiaries ⁽³⁾ in any of the last three fiscal years
- (4) A person who executes business in an organization that received donations exceeding NTT's standards ⁽⁴⁾

Even if any of (1) through (4) above applies to a person, where it has been decided that a person meets the independence standards, the reasons shall be explained and disclosed at the time of the person's appointment as the Independent Member of the Board or Audit & Supervisory Board Member.

- Notes: 1. "A partner company that exceeds NTT's standards" is defined as a company that has had any business dealing with NTT and its major subsidiaries ⁽³⁾ in any of the last three fiscal years equal to or more than 2% of the total operating revenues of NTT and its major subsidiaries for the respective fiscal year.
2. "A lending company that exceeds NTT's standards" is defined as a company in which the total amount of borrowings on a consolidated basis in any of the last three fiscal years equals to or is more than 2% of NTT's consolidated total assets for the respective fiscal year.
3. The major subsidiaries are NTT DOCOMO, INC., NIPPON TELEGRAPH AND TELEPHONE EAST CORPORATION, NIPPON TELEGRAPH AND TELEPHONE WEST CORPORATION, NTT COMMUNICATIONS CORPORATION and NTT DATA CORPORATION.
4. "An organization that received donations exceeding NTT's standards" is defined as an organization which received donations from NTT and its major subsidiaries*3 in any of the last three fiscal years exceeding ¥10 million or 2% of the total income of the organization, whichever is larger, during the respective fiscal year.

Criteria for Selection and Activities of Outside Members of the Board and Audit & Supervisory Board Members

NTT, in order to strengthen functions for appropriately supervising and auditing business execution, seeks to strengthen its auditing system by appointing four outside independent Members of the Board. Each outside independent member of the board has a wealth of experience as operational director of an academic educational institution, as a corporate manager or as an officer of public relations and diversity promotion in the Government has a high level of integrity and insight and, by providing advice from a wide-ranging managerial perspective, plays an important role in helping to strengthen the supervisory function for business execution.

Outside Members of the Board receive reports from the corporate auditors and Internal Control Office regarding audit plans and results, and also oversee business operations by providing input as needed.

NTT appoints three outside independent Audit & Supervisory Board Members out of the five total Audit Supervisory & Board Members. NTT expects that each outside independent Audit & Supervisory Board Member conduct future audits based on the knowledge and insight they have gained throughout their careers. NTT's Audit & Supervisory Board, including the outside independent Audit & Supervisory Board Members, periodically exchange information with NTT's accounting

auditors regarding audit plans, audit results and other information. The Audit & Supervisory Board also exchanges information with the Internal Control Office, including information relating to internal audit results.

(3) Audit & Supervisory Board, Independent Auditor and Internal Control

i . Audit & Supervisory Board Members

Composition of the Audit & Supervisory Board

The Audit & Supervisory Board comprises three outside independent Audit & Supervisory Board Members (including one female member), who have experience and knowledge in a range of fields-as a Certified Public Accountant, university professor, and lawyer and two internal Audit & Supervisory Board Members (including one female member). NTT conducts effective audits by combining the independence of outside Audit & Supervisory Board Members with the superior information collection capabilities of internal Audit & Supervisory Board Members. Among the board members, the Audit & Supervisory Board Member, Takao Maezawa, has experience in the accounting division of NTT and its affiliated companies while Audit & Supervisory Board Member, Kaoru Kashima, a Certified Public Accountant, has considerable knowledge in the areas of finance and accounting.

Please see “(2) Members of the Board” on page 83.

Activities of the Audit & Supervisory Board

Audit & Supervisory Board Members, including outside independent Audit & Supervisory Board Members, attend meetings of the Board of Directors and other important meetings. In addition, Audit & Supervisory Board Members meet periodically with Representative Members of the Board and Members of the Board to exchange ideas and opinions and hold discussions on various topics. In this way, Audit & Supervisory Board Members maintain an understanding of the execution of duties by Members of the Board and provide their opinions as needed.

In the fiscal year ended March 31, 2019, the Audit & Supervisory Board met 24 times. Moreover, separate from meetings of the Audit & Supervisory Board, the Audit & Supervisory Board Members Preliminary Deliberation Meeting met 37 times. These meetings provide a venue for the sharing of information. For example, at these meetings Audit & Supervisory Board Members receive explanations from corporate officers of matters to be discussed at the Executive Officers Meeting. Furthermore, Audit & Supervisory Board Members work closely with Independent Auditors and the Internal Control Office. Audit & Supervisory Board Members exchanged opinions with Independent Auditor 9 times and the Internal Control Office 12 times, and receive explanations of audit plans and reports on the status of internal control systems and provide advice as needed.

In initiatives related to Group companies, Audit & Supervisory Board Members received information from the Representative Members of the Board of 20 major Group companies regarding the status of corporate governance and measures to maintain and enhance corporate governance, and discussions were conducted on those matters. In addition, Audit & Supervisory Board Members visited major bases in Japan and overseas (18 bases), received information from local representatives, and conducted discussions. Furthermore, Audit & Supervisory Board Members received reports regarding audit results from Audit & Supervisory Board Members of major Group companies and exchanged opinions with them. In addition, the Audit & Supervisory Board is implementing initiatives that contribute to enhancing the auditing activities of Audit & Supervisory Board Members of major Group companies, including regularly holding training sessions by outside experts for Audit & Supervisory Board Members of major Group companies.

Through these activities, Audit & Supervisory Board Members support the sound, steady growth of NTT and Group companies from an independent perspective that differs from that of executives. In addition, Audit & Supervisory Board Members contribute to the strengthening of corporate governance systems and the fostering of awareness of compliance matters.

Evaluation of the Effectiveness of the Audit & Supervisory Board

In the fiscal year ended March 31, 2019, an evaluation of the effectiveness of the Audit & Supervisory Board was conducted for the purpose of evaluating audit activities, reflecting this in audit plans for the next fiscal year, improving the quality of audits performed by the Audit & Supervisory Board and other matters. This evaluation was implemented through discussions and verifications regarding effectiveness between all Audit & Supervisory Board Members, based on the results of a self-assessment questionnaire taken by each Audit & Supervisory Board Member. As a result, we evaluated that the effectiveness of the Audit & Supervisory Board is being ensured, and we will work to further improve the Board’s effectiveness going forward.

Nomination Policies and Procedure for Audit & Supervisory Board Members

NTT has the policy of electing candidates for Audit & Supervisory Board Members that have the capacity to provide audits based on specialized experience and insight. From the perspective of guaranteeing fair audits of the execution of duties by Members of the Board, for outside independent Audit & Supervisory Board Members NTT elects individuals who present no risk of a conflict of interest with general shareholders. In accordance with the Companies Act, NTT ensures that outside independent Audit & Supervisory Board Members make up half or more of the Audit & Supervisory Board.

With regard to the nomination of Audit & Supervisory Board Members, the procedure for nomination involves Members of the Board proposing Audit & Supervisory Board Member candidates based on the nomination policy described above. These proposals are then discussed by the Audit & Supervisory Board, which consists of half or more of outside independent Audit & Supervisory Board Members, and consent is granted if appropriate. The candidates are then approved by the Board of Directors and presented for voting at the General Meeting of Shareholders.

Support Structures for Audit & Supervisory Board Members

The Office of Audit & Supervisory Board Members, which has four dedicated NTT employees, has been established as a structure to support audits by the Audit & Supervisory Board Members. In addition, NTT has concluded contracts with lawyers and other specialists who may be called upon as necessary to provide advice at the expense of NTT. In addition, when Audit & Supervisory Board Members are elected, they are trained with respect to market trends and compliance. They then continue to undergo training on broad spectrum of topics, including domestic and overseas economic and social issues, after appointment. Moreover, NTT is creating opportunities for tours and implementing other initiatives so that outside Audit & Supervisory Board Members can further deepen their understanding of NTT and NTT Group.

ii. Internal Control

The Internal Control Office consists of 10 members, and works together with the internal auditing divisions of each Group company to verify the internal control systems in place throughout the Group and the status of their implementation. Specifically, internal audits are conducted by the internal auditing divisions of each Group company, and the results of these auditing activities are reviewed by NTT. In addition, by conducting standardized audits with regard to major risk factors that are common issues throughout the Group and testing the maintainance and operation of internal control systems related to financial reporting pursuant to the Financial Instruments and Exchange Act of Japan, NTT is continuously enhancing and verifying their effectiveness.

In addition, the Internal Control Office reports and shares the above results to the Audit & Supervisory Board and the independent auditor, and promotes necessary coordination.

Furthermore, the Internal Control Office shares the above results with relevant departments. Based on such results, relevant departments work to improve the internal control system as needed.

iii. Independent Auditor

Activities of the Independent Auditor

NTT has appointed KPMG AZSA LLC as its Independent Auditor. The Independent Auditor maintains the level of coordination with the Audit & Supervisory Board and the Internal Control Office necessary to conduct appropriate audits. As part of this coordination, the Independent Auditor appropriately audits through reporting the audit plans and audit results to the Audit & Supervisory Board and working together with the Internal Control Office to establish systems for monitoring the status of oversight related to evaluating internal control systems for financial reports.

For the fiscal year ended March 31, 2019, the Independent Auditors who carried out the audit were Takuji Kanai, Kensuke Sodekawa and Masashi Oki, whose years of experience as Independent Auditor are within the statutory guidelines. In addition, 30 public certified accountants and 32 other staff assisted in conducting the audits.

Nomination Policy and Reason of the Independent Auditor

NTT believes that it is important to maintain and enhance audit quality while increasing audit efficiency. Based on this policy, the Audit & Supervisory Board evaluates Independent Auditor candidates from the perspectives of their independence

and specialties and the appropriateness and adequateness of their auditing activities. The candidates that are approved by the Audit & Supervisory Board are then presented for voting at the Ordinary General Meeting of Shareholders.

The Audit & Supervisory Board may choose to dismiss or not reappoint the Independent Auditor in any of the cases described in Article 340 (1) of the Companies Act based on a unanimous vote by all Audit & Supervisory Board Members. In addition, if the Board of Directors determines that it would be difficult for the Independent Auditor to perform proper audits, the Audit & Supervisory Board may propose a resolution to the Ordinary General Meeting of Shareholders that the Independent Auditor be discharged or that the Independent Auditor not be reappointed.

iv. Description of Audit Fees

Compensation of Independent Auditor

<u>Category</u>	<u>Fiscal year ended March 31, 2018</u>		<u>Fiscal year ended March 31, 2019</u>	
	<u>Compensation for Audit Services</u> (millions of yen)	<u>Compensation for Non-Audit Services</u> (millions of yen)	<u>Compensation for Audit Services</u> (millions of yen)	<u>Compensation for Non-Audit Services</u> (millions of yen)
NTT	380	84	316	15
Consolidated subsidiaries	2,801	159	2,450	96
Total	3,181	243	2,766	111

Non-audit services for which NTT and its major consolidated subsidiaries pay compensation to KPMG AZSA LLC, NTT's independent auditor, include advisory and guidance services relating to IFRS.

Compensation of the Same Network (KPMG Network) as the Independent Auditor (excluding the above "Compensation of Independent Auditor")

<u>Category</u>	<u>Fiscal year ended March 31, 2018</u>		<u>Fiscal year ended March 31, 2019</u>	
	<u>Compensation for Audit Services</u> (millions of yen)	<u>Compensation for Non-Audit Services</u> (millions of yen)	<u>Compensation for Audit Services</u> (millions of yen)	<u>Compensation for Non-Audit Services</u> (millions of yen)
NTT	–	–	–	–
Consolidated subsidiaries	2,855	155	1,667	188
Total	2,855	155	1,667	188

NTT and its major consolidated subsidiaries pay compensation to KPMG AZSA LLC, NTT's Independent Auditor, and other member firms of the KPMG network for audit services and non-audit services.

Of these services, audit services provided by entities other than KPMG AZSA LLC consisted of audits of the financial statements of 292 overseas consolidated subsidiaries. Non-audit services consisted of the preparation of tax returns for 70 consolidated subsidiaries in Japan and overseas.

Other Significant Audit Service Fees

Not applicable.

Policy for Determining Audit Fees

Not applicable. However, audit fees are determined with the consent of the Audit & Supervisory Board in accordance with applicable laws and regulations, taking into consideration such factors as the size and characteristics of NTT and its subsidiaries and the days required for the audits.

Evaluation of Independent Auditor by the Audit & Supervisory Board and Reasons

The Audit & Supervisory Board evaluates the independence and expertise of the independent auditor, and the validity and appropriateness of the audit activity by the independent auditor. Specifically, the Audit & Supervisory Board has evaluated the quality control of the independent auditor, the composition of the audit team, communications with the Audit & Supervisory Board and management, quality of overseas networks and firms, audit reports and other points, and has confirmed that the independent auditor has the business execution ability and quality control systems suitable for NTT's independent auditor.

Reasons for Consent to Compensation to Independent Auditor by the Audit & Supervisory Board

The Audit & Supervisory Board consented to the compensation of the independent auditor pursuant to Article 399, paragraph 1 of the Companies Act after confirming and examining the details of the audit plan, the status of performing duties of financial audits, the basis for the calculation of the estimate of compensation of the independent auditor and other factors.

(4) Compensation of Members of the Board and Audit & Supervisory Board Members Policy

Policy

With regard to compensation policy and the composition and levels of compensation of Members of the Board of NTT, in order to improve objectivity and transparency, NTT established the Appointment and Compensation Committee, comprised of four Members of the Board, including two outside independent Members of the Board. Compensation matters are decided by the Board of Directors after deliberation by this committee. In the fiscal year under review, in addition to holding meetings of the Appointment and Compensation Committee three times, committee members also met to exchange opinions and ideas on multiple occasions.

Compensation of Members of the Board (excluding outside Members of the Board) consists of a base salary and a bonus. The base salary is paid monthly on the basis of the scope of each Member of the Board's roles and responsibilities. The bonus is paid taking into account factors including the degree of achievement of performance indicators, such as operating profit for the fiscal year ended March 31, 2019. Also, Members of the Board make contributions of a certain defined amount or more from their base salary and bonus for the purchase of NTT shares through the Board Members Shareholding Association in order to reflect NTT's medium to long-term business results in compensation. Purchased shares are to be held by the Members of the Board throughout their terms of office. The composition ratio of compensation in a case where standard business results are achieved is roughly 70/30 of fixed compensation to performance-related compensation.

Also, with the aim of realizing a stronger awareness of achieving the Medium-Term Management Strategy, sustainable growth, and medium- to long-term improvement in corporate value, NTT is considering paying a bonus in accordance with the degree to which the KPI linked to the Medium-Term Management Strategy are achieved from fiscal 2019, and expanding the ratio of overall compensation occupied by performance-related compensation from fiscal 2020.

In order to maintain a high level of independence, compensation of outside Members of the Board consists of a base salary only, and is not linked to NTT's business results.

Compensation of Audit & Supervisory Board Members is determined by resolution of the Audit & Supervisory Board and consists of a base salary only, for the same reasons as those cited above with respect to outside Members of the Board.

Total Compensation of Members of the Board and Audit & Supervisory Board Members (Fiscal Year Ended March 31, 2019)

<u>Class</u>	<u>Number of Persons Paid</u> (persons)	<u>Monthly Remuneration</u> (millions of yen)	<u>Board Member Bonuses</u> (millions of yen)	<u>Total Amount</u> (millions of yen)
Members of the Board (excluding Outside Members of the Board)	13	435	112	547
Audit & Supervisory Board Members (excluding Outside Audit & Supervisory Board Members)	2	74	—	74
Total	15	509	112	621

- Notes: 1. Compensation amounts shown above include compensation paid to three Members of the Board who retired on June 26, 2018, at the conclusion of the 33rd Ordinary General Meeting of Shareholders.
2. Maximum limits on total annual compensation of Members of the Board and Audit & Supervisory Board Members were set at ¥750 million for Members of the Board (15 members or less) and ¥200 million for Audit & Supervisory Board Members (five members or less) at the 21st Ordinary General Meeting of Shareholders held on June 28, 2006..
3. In addition to the above, there was a bonus of ¥17 million paid to six Members of the Board who concurrently serve as employees.
4. Targets for performance indicators, such as operating profit, for the payment of executive bonuses have been achieved.

Total Amount of Compensation for Outside Members of the Board
(Fiscal Year Ended March 31, 2019)

	<u>Number of Persons Paid</u> (persons)	<u>Monthly Remuneration</u> (millions of yen)
Total Compensation for Outside Members of the Board	5	75

(5) Shareholdings

NTT does not hold so-called “cross-held shares” to create stable shareholders, and has no plans to hold them in the future.

Criteria of and Approach to the Classification of Equity Securities for Investments

In terms of holding shares, NTT designates equity securities that are solely for the purpose of investments as “stocks held to obtain profits by using short-term fluctuations in interest rates, currencies, security market prices and market discrepancies, or to receive dividends or other things.”

On the other hand, NTT makes strategic shareholdings by “holding stock as needed in order to pursue collaboration and open innovation with partners in various industries to contribute to medium- to long-term improvement in corporate value.”

Equity Securities Held for Purposes other than Solely for Investment

NTT’s policy is to make strategic shareholdings, as needed, in order to pursue collaboration and open innovation with partners in various industries to contribute to medium- to long-term improvement in corporate value. With regard to the shares held pursuant to these policies, the Investment Strategy Committee evaluates the appropriateness of holding individual stocks by comprehensively taking into consideration the contribution to the medium- to long-term results of NTT, the progress of business collaborations, future considerations concerning business collaborations, performance trends of the investment targets and future business strategies of NTT.

With respect to exercising voting rights of strategic shareholding, NTT exercises voting rights acquired through share ownership, as it sees fit, from the perspective of sustainable growth of the companies NTT invests in and improving corporate value for both NTT and the companies.

The status of NTT’s holding of such stock is as follows:

(a) Number of issues and total balance sheet amount of equity securities held for purposes other than solely for investment

	Number of Issues	Total Balance Sheet Amount (Millions of yen)
Unlisted shares	7	9,175
Shares other than unlisted shares	1	2,380

(Issues in which the number of shares increased in the fiscal year ended March 31, 2019)

	Number of Issues	Total acquisition cost relating to the increase in the number of shares (Millions of yen)	Reasons for the increase in the number of shares
Unlisted shares	1	50	For the business alliance aimed at business development in the power segment
Shares other than unlisted shares	—	—	—

(Issues in which the number of shares decreased in the fiscal year ended March 31, 2019)

Not applicable.

(b) Number of shares, balance sheet amounts and other information of specified equity securities and deemed holdings of equity securities by issue

(Specified Equity Securities)

Issue Name	Year ended March 31, 2019	Year ended March 31, 2018	Purpose of holding, quantitative effects of holding, and reasons for the increase in the number of shares	Whether the investee holds NTT's shares
	Number of Shares (Shares)	Number of Shares (Shares)		
	Balance Sheet Amounts (Millions of yen)	Balance Sheet Amounts (Millions of yen)		
KADOKAWA DWANGO CORPORATION	2,040,000	2,040,000	Strengthening business collaboration in the field of research and development primarily for video and social media services. Comprehensively taking into account NTT Group's aim of expanding the usage area of NTT Group's technology, including through demonstration experiments of a variety of advanced technologies, the contribution to medium- to long-term business results resulting from the evolution of services that utilize them, as well as the company's business results and future management strategies, NTT Group has decided to continue holding their shares.	No
	2,380	2,262		

(Deemed holdings of equity securities)

Not applicable.

Equity Securities Held Solely for the Purpose of Investment

Not applicable.

Equity Securities Reclassified from Held Solely for the Purpose of Investment to Held for Purposes other than Solely for Investment during the Fiscal Year Ended March 31, 2019

Not applicable.

Equity Securities Reclassified from Held for Purposes other than Solely for Investment to Held Solely for the Purpose of Investment during the Fiscal Year Ended March 31, 2019

Not applicable.

The status of NTT DOCOMO, which has the highest amount of investment shares on its balance sheet among NTT and its consolidated subsidiaries, is as follows:

Equity Securities Held for Purposes other than Solely for Investment

- a. Shareholding policy, method of verification of the rationale for shareholdings, and details of verification by the Board of Directors, etc. of the appropriateness of shareholdings in individual issues

With respect to shares strategically held, the Company considers the status of achievement of the purposes of investments, such as the reinforcement of relationships and the promotion of collaboration, as well as whether the returns and risks of the shareholdings are commensurate with capital costs, etc., and the Board of Directors verifies the appropriateness of the shareholdings. In the event that a rationale for a shareholding can no longer be found due to changes in the situation going forward, the Company will conduct a review of such shares, such as reducing the number of shares.

- b. Number of issues and total balance sheet amount

	Number of Issues	Total Balance Sheet Amount (Millions of yen)
Unlisted shares	42	12,482
Shares other than unlisted shares	17	235,397

(Issues in which the number of shares increased in the fiscal year ended March 31, 2019)

	Number of Issues	Total acquisition cost relating to the increase in the number of shares (Millions of yen)	Reasons for the increase in the number of shares
Unlisted shares	2	2,263	To promote collaboration with the business alliance partner
Shares other than unlisted shares	—	—	—

(Issues in which the number of shares decreased in the fiscal year ended March 31, 2019)

	Number of Issues	Total acquisition cost relating to the increase in the number of shares (Millions of yen)
Unlisted shares	3	1,439
Shares other than unlisted shares	3	13,587

c. Number of shares, balance sheet amounts and other information of specified equity securities and deemed holdings of equity securities by issue

(Specified Equity Securities)

Issue Name	Year ended March 31, 2019	Year ended March 31, 2018	Purpose of holding, quantitative effects of holding, and reasons for the increase in the number of shares	Whether the investee holds NTT DOCOMO's shares
	Number of Shares (Shares)	Number of Shares (Shares)		
	Balance Sheet Amounts (Millions of yen)	Balance Sheet Amounts (Millions of yen)		
PLDT Inc.	31,330,155	31,330,155	To enhance the corporate value of the Company through global collaboration and information sharing and to maintain and reinforce the favorable relationship	No
	76,102	94,417		
Far EasTone Telecommunications Co., Ltd.	153,543,573	153,543,573	To enhance the corporate value of the Company through global collaboration and information sharing and to maintain and reinforce the favorable relationship	No
	40,955	43,713		
KT Corporation	22,711,035	22,711,035	To enhance the corporate value of the Company through global collaboration and information sharing and to maintain and reinforce the favorable relationship	No
	38,929	40,582		
FamilyMart UNY Holdings Co., Ltd.	7,251,200	2,930,500	To expand the Company's priority business through the promotion of collaboration in d Payment and d POINTs	No
	20,455	26,257		
Nippon Television Holdings, Inc.	7,779,000	7,779,000	To enhance corporate value through collaboration between the Company's services and the investee group's superior contents and the utilization of know-how	No
	12,913	15,167		
Lawson, Inc.	2,092,000	2,092,000	To expand the Company's priority business through the promotion of collaboration in d Payment and d POINTs	No
	12,844	15,167		
FUJI MEDIA HOLDINGS, INC.	7,700,000	7,700,000	To enhance corporate value through collaboration between the Company's services and the investee group's superior contents and the utilization of know-how	No
	11,765	13,975		
TOKYO BROADCASTING SYSTEM HOLDINGS, INC.	5,713,000	5,713,000	To enhance corporate value through collaboration between the Company's services and the investee group's superior contents and the utilization of know-how	No
	11,574	12,894		
EduLab, Inc.	429,200	2,146	To enhance corporate value through collaboration in the education field utilizing the assets held by the investee	No
	2,424	468		
Oisix ra daichi Inc.	1,000,000	500,000	To enhance corporate value through collaboration in the food area utilizing the assets held by the investee	No
	1,679	864		
KADOKAWA DWANGO CORPORATION	1,204,208	1,204,208	To enhance corporate value through collaboration between the Company's services and the investee group's superior contents and the utilization of know-how	No
	1,405	1,335		
PKSHA Technology Inc.	214,000	107,000	To enhance corporate value through collaboration in the AI field utilizing the assets held by the investee	No
	1,316	1,449		

Issue Name	Year ended March 31, 2019	Year ended March 31, 2018	Purpose of holding, quantitative effects of holding, and reasons for the increase in the number of shares	Whether the investee holds NTT DOCOMO's shares
	Number of Shares (Shares)	Number of Shares (Shares)		
	Balance Sheet Amounts (Millions of yen)	Balance Sheet Amounts (Millions of yen)		
neos corporation	1,020,000	1,020,000	To enhance corporate value through collaboration between the Company's services and the investee group's superior contents and the utilization of know-how	No
	1,074	408		
SKY Perfect JSAT Holdings Inc.	2,048,100	2,048,100	To enhance the corporate value of the Company through collaboration and information sharing in the satellite communication business with the investee and to maintain and reinforce the favorable relationship	No
	942	978		
NTT DATA INTRAMART CORPORATION	245,000	500,000	To enhance corporate value through collaboration in the development of corporate solutions utilizing the investee's assets	No
	872	1,111		
Nippon BS Broadcasting Corporation	80,000	80,000	To maintain and reinforce the business relationships with the investee group	No
	84	100		
BICCAMERA INC.	50,000	50,000	To maintain and reinforce the business relationships with the investee group	No
	58	83		

Notes: 1. The number of shares and balance sheet amount for PLDT Inc. include 8,533,253 shares and ¥25,719 million in the form of ADRs for the fiscal year ended March 31, 2018, and include 8,533,253 shares and ¥20,523 million in the form of ADRs for the fiscal year ended March 31, 2019.

2. The number of shares and balance sheet amount for KT Corporation include 16,906,444 shares and ¥24,607 million in the form of ADRs for the fiscal year ended March 31, 2018, and include 16,906,444 shares and ¥23,342 million in the form of ADRs for the fiscal year ended March 31, 2019.

3. It is difficult to quantify the effects of shareholding. The rationales for the shareholdings are verified by considering the status of achievement of the purposes of investments, such as the reinforcement of relationships and the promotion of collaboration, and whether the returns and risks of the shareholdings are commensurate with capital costs, etc.

4. Oisix. daichi Inc. changed its name to Oisix ra daichi Inc. in July 2018 ahead of its management integration with Radish Boya Co., Ltd.

(Deemed holdings of equity securities)

Not applicable.

Equity Securities Held Solely for the Purpose of Investment

Not applicable.

Equity Securities Reclassified from Held Solely for the Purpose of Investment to Held for Purposes other than Solely for Investment during the Fiscal Year Ended March 31, 2019

Not applicable.

Equity Securities Reclassified from Held for Purposes other than Solely for Investment to Held Solely for the Purpose of Investment during the Fiscal Year Ended March 31, 2019

Not applicable.

The status of NTT DATA, which has the next-highest amount of investment shares on its balance sheet among NTT and its consolidated subsidiaries, is as follows:

Equity Securities Held for Purposes other than Solely for Investment

a. Policy

•Policy Relating to Strategic Shareholdings

NTT DATA’s purpose of strategic shareholdings is to maintain medium- to long-term relationships, to expand trading volume and to create synergies with clients and business partners by holding shares issued by them. It is NTT DATA’s policy to hold such shares if holding them is likely to enhance NTT DATA’s enterprise value and lead to profit for its shareholders.

On the other hand, NTT DATA designates equity securities that are solely for the purpose of investment as “stocks held in order to obtain profits by using short-term fluctuations in interest rates, currencies, security market prices and market discrepancies, or to receive dividends or other things.”

•Assessment of Strategic Shareholdings

The Board of Directors of NTT DATA assesses the significance of NTT DATA’s strategic shareholdings each year, in a comprehensive manner for each company whose stock NTT DATA holds, from the viewpoint of whether benefits and risks from holding the shares are commensurate with capital costs and whether holding the shares in line with the purposes of holding: to maintain medium-to long-term relationships, to expand trading volume, to create synergies, and for other reasons, and then determines whether to hold or sell such shares. In the fiscal year ended March 31, 2019, as a result of this assessment, NTT DATA confirmed the appropriateness of holding all the listed shares held. If it no longer proves to be appropriate to hold a share due to future changes in circumstances, NTT DATA will take measures including reduction of the number of shares.

•Standards for Ensuring the Exercise of its Proper Voting Rights in Relation to Strategic Shareholdings

With regard to standards for ensuring the exercise of its proper voting rights in relation to strategic shareholdings, NTT DATA judges in a comprehensive manner whether the exercise of its voting right in relation to strategic shareholdings will lead to continuous growth and improvement in the medium- to long-term enterprise value of an issuing company. For example, NTT DATA will vote against a proposal if it has a negative impact on the financial soundness of the issuing company or the company’s illegal action is discovered. NTT DATA considers that such comprehensive judgment will enhance its own enterprise value and medium- to long-term profit for its shareholders and investors.

b. Number of issues and total balance sheet amount

	Number of Issues	Total Balance Sheet Amount (Millions of yen)
Unlisted shares	84	5,301
Shares other than unlisted shares	46	111,690

(Issues in which the number of shares increased in the fiscal year ended March 31, 2019)

	Number of Issues	Total acquisition cost relating to the increase in the number of shares (Millions of yen)	Reasons for the increase in the number of shares
Unlisted shares	5	425	•For business collaborations with companies with advanced technology
Shares other than unlisted shares	3	187	•For business collaborations with companies with advanced technology •To expand business by maintaining and strengthening relationships, and further strengthen relationships

(Issues in which the number of shares decreased in the fiscal year ended March 31, 2019)

	Number of Issues	Total acquisition cost relating to the increase in the number of shares (Millions of yen)
Unlisted shares	5	690
Shares other than unlisted shares	—	—

c. Number of shares, balance sheet amounts and other information of specified equity securities and deemed holdings of equity securities by issue

(Specified Equity Securities)

Issue Name	Year ended March 31, 2019	Year ended March 31, 2018	Purpose of holding, quantitative effects of holding, and reasons for the increase in the number of shares	Whether the investee holds NTT DATA's shares
	Number of Shares (Shares)	Number of Shares (Shares)		
	Balance Sheet Amounts (Millions of yen)	Balance Sheet Amounts (Millions of yen)		
Recruit Holdings Co., Ltd.	31,500,000	31,500,000	To expand business by maintaining and strengthening relationships in the enterprise and solutions segment	No
	99,572	83,302		
Japan Airport Terminal Co., Ltd.	375,000	375,000	To expand business by maintaining and strengthening relations in the public and social infrastructure segment	No
	1,753	1,524		
eGuarantee, Inc.	1,440,000	720,000	To expand business by maintaining and strengthening relationships in the financial segment	No
	1,591	1,560	Number of shares has increased due to a stock split	
DTS CORPORATION	385,550	385,550	To facilitate business activities by strengthening IT partnerships in the financial segment	Yes
	1,577	1,419		
Serverworks Co., Ltd.	65,000	—	To expand our business by acquiring new technologies and solutions in the enterprise and solution segment	No
	1,173	—	Implemented new investments in the fiscal year ended March 31, 2019	
Dai-ichi Life Holdings, Inc.	670,000	670,000	To expand business by maintaining and strengthening relationships in the financial segment	No
	1,030	1,301		
Seven & i Holdings Co., Ltd.	204,228	204,228	To expand business by maintaining and strengthening relationships in the enterprise and solutions segment	No
	853	932		
Billing System Corporation	220,000	220,000	To expand business by maintaining and strengthening relationships in the financial segment	No
	802	1,076		
TECNOS DATA SCIENCE ENGINEERING INCORPORATED	160,000	80,000	To expand our business by acquiring new technologies and solutions in the enterprise and solution segment	No
	767	56	Number of shares has increased due to a stock split	
Computer Institute of Japan, Ltd.	475,200	475,200	To facilitate business activities by strengthening IT partnerships in the public and social infrastructure segment	No
	398	334		

Note: Quantitative holding effect of each issue

Although the Board of Directors of NTT DATA assesses the reasonableness of NTT DATA's strategic shareholdings each year, in a comprehensive manner for each company whose stock NTT DATA holds, from the viewpoint of whether benefits and risks from holding the shares are commensurate with capital costs and in line with the purposes of holding: to maintain the medium-to long-term relationship, to expand trading volume, to create synergies, and for other reasons, the quantitative holding effect of each issue is difficult to report due to confidentiality and competition reasons.

(Deemed holdings of equity securities)

Not applicable.

Equity Securities Held Solely for the Purpose of Investment

Not applicable.

Equity Securities Reclassified from Held Solely for the Purpose of Investment to Held for Purposes other than Solely for Investment during the Fiscal Year Ended March 31, 2019

Not applicable.

Equity Securities Reclassified from Held for Purposes other than Solely for Investment to Held Solely for the purpose of Investment during the Fiscal Year Ended March 31, 2019

Not applicable.

Item 5. Financial Information

1. Basis of Preparation of the Consolidated Financial Statements

Pursuant to the provision of Article 93 of the “Ordinance on the Terminology, Forms, and Preparation Methods of Consolidated Financial Statements” (Ordinance of the Ministry of Finance of Japan No. 28 of 1976), NTT Group’s consolidated financial statements are prepared in accordance with International Financial Reporting Standards (“IFRS”). Amounts stated in the consolidated financial statements are rounded to the nearest million yen.

2. Auditor’s Report

In accordance with Article 193-2, Paragraph 1 of the Financial Instruments and Exchange Act of Japan, NTT Group’s consolidated financial statements for the consolidated fiscal year (from April 1, 2018 to March 31, 2019) and non-consolidated financial statements for the fiscal year (from April 1, 2018 to March 31, 2019) have been audited by KPMG AZSA LLC.

3. Special Measures to Ensure the Appropriateness of the Consolidated Financial Statements and Structures to Properly Prepare the Consolidated Financial Statements in Accordance with IFRS

NTT Group undertakes special measures to ensure the appropriateness of the consolidated financial statements and put in place a structure to properly prepare the consolidated financial statements in accordance with IFRS. The details of such measures are below:

- (1) NTT Group is a member of organizations such as the Financial Accounting Standards Foundation in order to put in place a system in which NTT Group can ensure that it has an appropriate grasp on the contents of the accounting standards and can accurately respond to any changes in them. In addition, NTT Group periodically conducts reviews of the accounting standards and maintains internal regulations.
- (2) With respect to the application of IFRS, NTT Group obtains press releases and statements of the accounting principles published by the International Accounting Standards Board from time to time in order to gain an understanding of the most recent standards. Furthermore, to prepare appropriate consolidated financial statements in accordance with IFRS, NTT Group has developed group accounting policies and accounting guidelines in compliance with IFRS, and conducts its accounting in accordance with those policies and guidelines.

1. 【Consolidated Financial Statements】

(1) Consolidated Financial Statements

① 【Consolidated Statement of Financial Position】

(Millions of yen)

	Notes	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
ASSETS				
Current assets				
Cash and cash equivalents	8,9	1,075,773	895,003	946,134
Trade and other receivables	9,11,31	3,623,577	4,022,227	4,391,434
Other financial assets	12,31	167,410	123,344	117,753
Inventories	13	326,718	354,181	331,634
Other current assets	18,27	383,506	474,405	550,487
Subtotal		5,576,984	5,869,160	6,337,442
Assets held for sale	10	—	—	242,524
Total current assets		5,576,984	5,869,160	6,579,966
Non-current assets				
Property, plant and equipment	14	8,719,755	8,812,174	9,012,947
Goodwill	15	881,292	841,283	886,531
Intangible assets	15	1,609,598	1,589,448	1,627,762
Investment property	16	992,317	1,002,301	967,006
Investments accounted for using the equity method	10,17	528,981	539,342	298,261
Other financial assets	12,31	1,010,546	1,068,799	1,138,502
Deferred tax assets	10,18	1,243,283	1,173,946	1,124,467
Other non-current assets	23,27	660,971	644,991	659,704
Total non-current assets		15,646,743	15,672,284	15,715,180
Total assets		21,223,727	21,541,444	22,295,146

(Millions of yen)

	Notes	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
LIABILITIES AND EQUITY				
Current liabilities				
Short-term borrowings	19,31	1,079,243	1,017,744	1,397,545
Trade and other payables	21,31	1,797,544	1,811,723	2,092,479
Other financial liabilities	22,31	45,727	50,711	44,305
Accrued payroll		450,360	455,007	468,216
Income taxes payable		233,817	240,670	237,282
Other current liabilities	25	958,862	1,046,582	988,244
Total current liabilities		4,565,553	4,622,437	5,228,071
Non-current liabilities				
Long-term borrowings	19,31	3,179,645	2,953,855	2,865,181
Other financial liabilities	22,31	201,789	190,356	175,087
Defined benefit liabilities	23	1,876,845	1,860,524	1,878,013
Deferred tax liabilities	18	99,038	74,095	61,189
Other non-current liabilities	25	258,428	274,523	282,815
Total non-current liabilities		5,615,745	5,353,353	5,262,285
Total liabilities		10,181,298	9,975,790	10,490,356
Equity				
Nippon Telegraph and Telephone Corporation (“NTT”) shareholders’ equity				
Common stock	26	937,950	937,950	937,950
Additional paid-in capital	26	2,410,572	2,396,555	2,341,206
Retained earnings	12,26	5,468,245	6,125,957	5,954,305
Treasury stock	26	(375,223)	(610,742)	(150,635)
Other components of equity	10,12,26	179,453	200,638	182,087
Total NTT shareholders’ equity		8,620,997	9,050,358	9,264,913
Non-controlling interests	26	2,421,432	2,515,296	2,539,877
Total equity		11,042,429	11,565,654	11,804,790
Total liabilities and equity		21,223,727	21,541,444	22,295,146

(2) 【Consolidated Statement of Profit or Loss and Consolidated Statement of Comprehensive Income】

【Consolidated Statement of Profit or Loss】

(Millions of yen)

	Notes	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Operating revenues	6,27	11,782,148	11,879,842
Operating expenses			
Personnel expenses		2,393,358	2,391,617
Expenses for purchase of goods and services and other expenses	16,28	5,833,866	5,917,693
Depreciation and amortization	14,15,16	1,346,931	1,333,647
Loss on disposal of property, plant and equipment and intangible assets		154,161	172,167
Impairment losses	6		
Goodwill	15	34,119	39,443
Metal cables	14	124,800	66,003
Other		18,950	20,952
Taxes and dues	16	234,877	244,487
Total operating expenses		10,141,062	10,186,009
Operating profit	6	1,641,086	1,693,833
Finance income	12,29	43,964	24,465
Finance costs	12,17,29, 31	97,183	36,362
Income from arbitration award	17	147,646	—
Share of profit (loss) of entities accounted for using the equity method	6,17	4,966	(10,075)
Profit before taxes		1,740,479	1,671,861
Income taxes	10,18	533,780	533,174
Profit		1,206,699	1,138,687
Profit attributable to NTT		897,887	854,561
Profit attributable to Non-controlling interests		308,812	284,126
Earnings per share attributable to NTT			
Basic earnings per share (yen)	30	449.86	440.25

【Consolidated Statement of Comprehensive Income】

(Millions of yen)

	Notes	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Profit		1,206,699	1,138,687
Other comprehensive income (net of taxes)	26		
Items that will not be reclassified to profit or loss			
Change in the fair value of financial assets measured at fair value through other comprehensive income		—	5,967
Share of other comprehensive income of entities accounted for using the equity method	10,17	(432)	(4,637)
Remeasurements of the defined benefit plans		32,710	(13,250)
Total of items that will not be reclassified to profit or loss		32,278	(11,920)
Items that may be reclassified subsequently to profit or loss			
Unrealized gains (losses) on securities		15,602	—
Cash flow hedges		2,257	(2,784)
Foreign currency translation adjustments		(23,098)	2,791
Share of other comprehensive income of entities accounted for using the equity method	17	41,258	(12,025)
Total of items that may be reclassified to profit or loss		36,019	(12,018)
Total other comprehensive income (net of taxes)		68,297	(23,938)
Total comprehensive income		1,274,996	1,114,749
Comprehensive income attributable to NTT		950,302	826,154
Comprehensive income attributable to Non-controlling interests		324,694	288,595

(3) 【Consolidated Statement of Changes in Equity】

Fiscal year ended March 31, 2018

(Millions of yen)

	Notes	NTT shareholders' equity					Total	Non-controlling interests	Total equity
		Common stock	Additional paid-in capital	Retained earnings	Treasury stock	Other components of equity			
As of April 1, 2017		¥937,950	¥2,410,572	¥5,468,245	¥(375,223)	¥179,453	¥8,620,997	¥2,421,432	¥11,042,429
Comprehensive income									
Profit		—	—	897,887	—	—	897,887	308,812	1,206,699
Other comprehensive income	26	—	—	—	—	52,415	52,415	15,882	68,297
Total comprehensive income		—	—	897,887	—	52,415	950,302	324,694	1,274,996
Transactions with owners and other transactions									
Dividends of surplus	26	—	—	(271,405)	—	—	(271,405)	(126,494)	(397,899)
Transfer to retained earnings	26	—	—	31,230	—	(31,230)	—	—	—
Purchase and disposal of treasury stock	26	—	1	—	(235,519)	—	(235,518)	—	(235,518)
Changes in ownership interest in subsidiaries without loss of control	26	—	(22,467)	—	—	—	(22,467)	(104,336)	(126,803)
Share-based compensation transactions		—	(7,315)	—	—	—	(7,315)	—	(7,315)
Put options granted to non-controlling interests	26	—	15,764	—	—	—	15,764	—	15,764
Total Transactions with owners and other transactions		—	(14,017)	(240,175)	(235,519)	(31,230)	(520,941)	(230,830)	(751,771)
As of March 31, 2018		¥937,950	¥2,396,555	¥6,125,957	¥(610,742)	¥200,638	¥9,050,358	¥2,515,296	¥11,565,654

	Notes	NTT shareholders' equity						Non-controlling interests	Total equity
		Common stock	Additional paid-in capital	Retained earnings	Treasury stock	Other components of equity	Total		
As of March 31, 2018		¥937,950	¥2,396,555	¥6,125,957	¥(610,742)	¥200,638	¥9,050,358	¥2,515,296	¥11,565,654
Cumulative effect of adoption of IFRS 9 "Financial Instruments"		—	—	14,033	—	(2,432)	11,601	7,565	19,166
As of April 1, 2018		937,950	2,396,555	6,139,990	(610,742)	198,206	9,061,959	2,522,861	11,584,820
Comprehensive income									
Profit		—	—	854,561	—	—	854,561	284,126	1,138,687
Other comprehensive income	26	—	—	—	—	(28,407)	(28,407)	4,469	(23,938)
Total comprehensive income		—	—	854,561	—	(28,407)	826,154	288,595	1,114,749
Transactions with owners and other transactions									
Dividends of surplus	26	—	—	(313,605)	—	—	(313,605)	(142,171)	(455,776)
Transfer to retained earnings	26	—	—	(8,383)	—	8,383	—	—	—
Transfer to non-financial assets	26	—	—	—	—	3,905	3,905	—	3,905
Purchase and disposal of treasury stock	26	—	0	—	(258,153)	—	(258,153)	—	(258,153)
Cancellation of treasury stock	26	—	(2)	(718,258)	718,260	—	—	—	—
Changes in ownership interest in subsidiaries without loss of control	26	—	(61,233)	—	—	—	(61,233)	(135,038)	(196,271)
Share-based compensation transactions		—	(6,589)	—	—	—	(6,589)	—	(6,589)
Put options granted to non-controlling interests	26	—	12,475	—	—	—	12,475	5,630	18,105
Total Transactions with owners and other transactions		—	(55,349)	(1,040,246)	460,107	12,288	(623,200)	(271,579)	(894,779)
As of March 31, 2019		937,950	2,341,206	5,954,305	(150,635)	182,087	9,264,913	2,539,877	11,804,790

(4) 【Consolidated Statement of Cash Flows】

(Millions of yen)

	Notes	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Cash flows from operating activities			
Profit		1,206,699	1,138,687
Depreciation and amortization		1,346,931	1,333,647
Impairment losses		177,869	126,398
Share of loss (profit) of entities accounted for using the equity method		(4,966)	10,075
Losses on retirement of property, plant and equipment and intangible assets		69,591	85,703
Gain on sales of property, plant and equipment and intangible assets		(12,556)	(10,142)
Income taxes		533,780	533,174
Decrease (increase) in trade and other receivables	9	(395,972)	(338,018)
Decrease (increase) in inventories		(44,770)	1,572
Decrease (increase) in other current assets		(36,754)	(11,538)
Increase (decrease) in trade and other payables / accrued payroll		70,900	99,452
Increase (decrease) in other current liabilities		111,414	12,511
Increase (decrease) in defined benefit liabilities		18,596	834
Increase (decrease) in other non-current liabilities		12,371	4,359
Other		49,599	15,359
Subtotal		3,102,732	3,002,073
Interest and dividends received		58,634	56,889
Interest paid		(45,461)	(39,416)
Income taxes paid		(574,635)	(613,389)
Net cash provided by (used in) operating activities		2,541,270	2,406,157
Cash flows from investing activities			
Purchase of property, plant and equipment, intangible assets, and investment property		(1,748,113)	(1,672,350)
Purchase of investments		(251,295)	(65,623)
Proceeds from sale or redemption of investments		268,370	55,178
Expenses due to acquisition of control of subsidiaries		(9,057)	(107,264)
Other		(6,090)	15,923
Net cash provided by (used in) investing activities		(1,746,185)	(1,774,136)
Cash flows from financing activities			
Net increase (decrease) in short-term borrowings	19	(2,370)	486,124
Proceeds from increases in long-term borrowings	19	449,857	434,922
Repayments of long-term borrowings	19	(636,853)	(627,680)
Payments for acquisition of interests in subsidiaries from non-controlling interests	19	(132,431)	(164,415)
Dividends paid		(271,405)	(313,605)
Dividends paid to non-controlling interests		(126,366)	(142,020)
Payments for purchase of treasury stock		(235,570)	(258,215)
Other		(13,141)	623
Net cash provided by (used in) financing activities		(968,279)	(584,266)
Effect of exchange rate changes on cash and cash equivalents		(7,576)	3,376
Net increase (decrease) in cash and cash equivalents		(180,770)	51,131
Cash and cash equivalents as of April 1	9	1,075,773	895,003
Cash and cash equivalents as of March 31	9	895,003	946,134

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1. Reporting Entity

NIPPON TELEGRAPH AND TELEPHONE CORPORATION (“NTT”) is a corporation domiciled in Japan. The address of NTT’s registered headquarters is disclosed on its website (<http://www.ntt.co.jp/index.html>). The consolidated financial statements comprise NTT and its subsidiaries (“NTT Group” or “the Group”).

NTT Group’s business segments and material subsidiaries are as follows:

Mobile communications business (mobile phone business and other related business)

- NTT DOCOMO Corporation (“NTT DOCOMO”)

Regional communications business (the provision of communications services within prefectures and other incidental business under the Group’s domestic telecommunications business)

- NIPPON TELEGRAPH AND TELEPHONE EAST CORPORATION (“NTT East”)
- NIPPON TELEGRAPH AND TELEPHONE WEST CORPORATION (“NTT West”)

Long distance and international communications business (the provision of communications services between prefectures under the Group’s domestic telecommunications business, the Group’s international communications business, solutions business, and other related business)

- NTT Communications Corporation (“NTT Communications”)
- Dimension Data Holdings plc (“Dimension Data”)

Data communications business (systems integration, network systems services, and other business)

- NTT DATA Corporation (“NTT DATA”)

2. Basis of Preparation

(1) Matters Regarding Compliance with and First-Time Adoption of IFRS

NTT Group meets the requirements of a “Specified Company complying with Designated International Accounting Standards” pursuant to Article 1-2 of the “Order on the Terminology, Forms, and Preparation Methods of Consolidated Financial Statements” (Ordinance of the Ministry of Finance No. 28 of 1976) (the “Order on Consolidated Financial Statements”). Consequently, in accordance with Article 93 of the Order on Consolidated Financial Statements, the Group has prepared the consolidated financial statements pursuant to International Financial Reporting Standards (“IFRS”). The consolidated financial statements were approved by the President and Chief Executive Officer Jun Sawada and Senior Executive Vice President and Chief Financial Officer Akira Shimada on June 26, 2019.

NTT Group has applied IFRS from the current fiscal year ended March 31, 2019 (from April 1, 2018 to March 31, 2019), with the date of transition to IFRS being April 1, 2017. In connection with the transition to IFRS, the Group has applied IFRS 1 “First-time Adoption of International Financial Reporting Standards.” Please see “Note 37. First-Time Adoption of IFRS” for details regarding the impact of the transition to IFRS on the Group’s financial position, results of operation, and cash flows.

NTT Group’s accounting policies conform to IFRS as in effect as of March 31, 2019, with the exception of IFRS provisions that have not been early adopted and exemptions allowed under IFRS 1.

(2) Basis for Measurement

As described in “Note 3. Significant Accounting Policies,” the consolidated financial statements are prepared on the basis of cost, with the exception of certain items such as financial instruments measured at fair value, and assets and liabilities recognized in relation to the defined benefit plans.

(3) Functional Currency and Presentation Currency

The currency used to present the consolidated financial statements is Japanese yen, which is the currency used in the primary economic environment where NTT conducts its business activities (the “functional currency”). Amounts are rounded to the nearest million yen.

(4) Changes in Accounting Policies

NTT Group has applied IFRS 9 “Financial Instruments” (as published in July 2014) from the beginning of the current fiscal year (April 1, 2018).

Based on the exemptions under IFRS 1, comparative figures have not been restated in accordance with IFRS 9. The accounting standards applied as of the transition date to IFRS and the fiscal year ended March 31, 2018 were generally accepted accounting principles in the United States (“U.S. GAAP”). Significant accounting policies under U.S. GAAP and for the current fiscal year are described in “3. Significant Accounting Policies (4)Financial Instruments.”

Due to this change in accounting policies, equity instruments previously measured using the cost method under U.S. GAAP are measured at fair value from the beginning of the current fiscal year. The irrevocable election was made at the time of the application of IFRS 9 that all subsequent changes in the fair value would be recorded in other comprehensive income. Any changes in the fair value are recognized in other comprehensive income in the consolidated statement of comprehensive income.

The impact of this change on the consolidated statement of financial position

(Millions of yen)

Accounting item (classifications under U.S. GAAP)	Balance as of the end of the previous fiscal year (March 31, 2018)	Balance at the beginning of the current fiscal year under IFRS 9 (April 1, 2018)	Adjustment factor
Non-current assets Other financial assets (investment using the cost method)	54,364	67,258	Impact of the fair value measurement of unlisted stocks (equity securities)

Except for the above-mentioned adjustment factor, the impact of this change in the accounting policies is not material.

The cumulative effects on values at the beginning of the current fiscal year as a result of the application of IFRS 9

(Millions of yen)

Accounting item	Increase (Decrease)
Investments accounted for using the equity method	4,993
Other financial assets (non-current)	20,883
Deferred tax assets	(5,912)
Deferred tax liabilities	963
Retained earnings	14,033
Other components of equity	(2,432)
Non-controlling interests	7,565

The impact on “Profit” and “Basic earnings per share” for the current fiscal year is not material.

3. Significant Accounting Policies

The accounting policies adopted by NTT Group apply to all periods presented in the consolidated financial statements (including the consolidated statement of financial position as of the date of transition to IFRS).

(1) Basis for Consolidation

(i) Subsidiaries

Subsidiaries are companies over which NTT Group has control.

Beginning and ending of consolidation

Subsidiaries are consolidated for the periods from the date when control is obtained until the date when control is lost.

Accounting policies adopted by subsidiaries

In the event that the accounting policies adopted by a subsidiary differ from those adopted by NTT Group, then the financial statements of the subsidiary are adjusted as required.

Subsidiaries whose fiscal year-end date is different from that of NTT Group

The consolidated financial statements include the financial statements of subsidiaries whose fiscal year-end date is different from that of NTT Group for practically unfeasible to align the year-end dates with that of NTT Group. The fiscal year-end date of such subsidiaries is mainly December 31. For such subsidiaries, adjustments are made for any significant transactions or events that occur due to the difference between such subsidiaries' fiscal year ends and that of NTT Group.

Non-controlling interests

Non-controlling interests are composed of the amount of equity held as of the beginning date of consolidation and any subsequent fluctuations in those non-controlling interests from that date. In general, subsidiaries' comprehensive income is allocated to shareholders' equity and non-controlling interests, even in the event that the non-controlling interests are negative balances.

Transactions eliminated in the preparation of the consolidated financial statements

The balances of intra-group receivables and payments, transactions, and unrealized gains and losses incurred from the intra-group transactions are eliminated.

Changes in a parent's ownership interest

Changes in equity interests are accounted for as capital transactions when additional equity in a subsidiary is gained or part of the equity in a subsidiary is disposed of, while control of the subsidiary is maintained. The carrying amounts of NTT Group's equity interests and non-controlling interests are adjusted to reflect any changes in NTT Group's equity interests in subsidiaries. Any difference between the adjusted value of non-controlling interests and the fair value of consideration paid or received is directly recognized in equity and is attributable to NTT.

When NTT Group loses control of a subsidiary, the related gains or losses are calculated as the difference between:

- the sum of the fair value of the consideration received and the fair value of the remaining equity interests; and
- the net carrying amount of the assets (including goodwill), liabilities, and non-controlling interests of the subsidiary on the date when control is lost.

Amounts that have previously been recognized in other components of equity with respect to subsidiaries are transferred to profit or loss.

(ii) Investments in associates and joint ventures

Associates are companies whose finances and management policies are significantly influenced by NTT Group, without exerting control or joint control. In principle, companies in which NTT Group holds 20% to 50% of the voting rights are included in associates. Companies in which NTT Group holds less than 20% of the voting rights may be considered as associates if the Group is considered to exert significant influence through the dispatch of officers or similar means.

Joint ventures are companies in which several parties (including NTT and/or its consolidated subsidiaries) invest and have rights to the net assets based on arrangements for joint control. Joint control is the sharing of control as contractually agreed. It exists only when all parties sharing control are required to be in unanimous consent when making decisions on relevant activities.

Investments in associates and joint ventures are accounted for using the equity method. The amounts invested in associates and joint ventures are initially recognized at cost. Subsequently, from the date when NTT Group starts to exert significant influence to the date when such influence ceases, the Group recognizes its share of profit or loss and other comprehensive income of the investees and adjusts the investment amount.

If any losses on investments in associates or joint ventures exceed NTT Group's invested interests in these companies, NTT Group only recognizes losses to the extent of its investment amount, except for cases where NTT Group bears legal or other similar obligations, or makes payments on behalf of such company.

Unrealized profit or loss arising from transactions with associates and joint ventures is added to, or deducted from, the investments in the associates and joint ventures, up to a maximum of NTT Group's share.

The amount of the cost of investment in an associate or joint venture that exceeds NTT Group's share of the net fair value of identifiable assets and liabilities recognized on the acquisition date is recognized as goodwill and included in the carrying amount of the investment in an associate or joint venture.

As this goodwill is not recognized separately, discrete impairment testing for goodwill is not performed. Instead, an impairment test is carried out on the total investment in associates and joint ventures deemed as a single asset if there is objective evidence to indicate that the investment may be impaired.

The consolidated financial statements include investments accounted for using the equity method which have different fiscal year-end dates than that of NTT Group due to the relationship with other shareholders or other circumstances that make it practically unfeasible to align the fiscal year-end dates with that of NTT Group. The fiscal year-end date of such equity method investments is mainly December 31. Adjustments are made for any significant transactions or events that occur during the period between the equity method investments' fiscal year ends and that of NTT Group.

(iii) Consolidated structured entities

Structured entities* NTT Group has control the operation are consolidated. It has not provided, nor intends to provide, any significant financial support or other significant support to the consolidated structured entities without contractual obligation. Structured entities third parties has control are not consolidated and they are financing through investment by each partners.

*Structured entities :

Entities that are structured principally as venture funds in the form of partnerships, and Special Purpose Company in the form of limited partnerships for investment, and investment trusts with a purpose of securitizing property and other assets. They are designed so that the voting rights or similar rights are not determinant in evaluating control.

Description about subsidiaries and structured entities are presented in "Note 32. Major Subsidiaries."

(2) Business Combinations

The consideration delivered at the time of business combination is measured as the sum of the fair value of assets transferred by NTT Group and the liabilities of the former owner of the acquired company assumed by NTT Group. Acquisition-related expenses are recognized in profit or loss at the time they are incurred.

Any identifiable assets acquired and liabilities of the former owner of the acquired company assumed by NTT Group on the date when control is obtained are measured at fair value as of that date, with the exception of the following:

- Deferred tax assets/deferred tax liabilities and assets/liabilities relating to employee benefits are recognized and measured in accordance with IAS 12 “Income Taxes” and IAS 19 “Employee Benefits,” respectively.
- The acquired company’s share-based compensation agreements, or any liabilities or equity instruments alternatively issued to convert such agreements to NTT Group’s scheme, are measured on the date when control is obtained (acquired) in accordance with IFRS 2 “Share-based Payment.”
- Assets classified as held for sale or disposal groups are measured in accordance with IFRS 5 “Non-current Assets Held for Sale and Discontinued Operations.”

Goodwill is measured as the excess amount if the sum of the transferred consideration and the amount of the non-controlling interests in the acquired company exceeds the net amount of identifiable assets and liabilities on the date when control is obtained. If the difference is a negative amount, it is immediately recognized in profit or loss. Goodwill generated by a business combination is allocated to cash-generating units that benefit from the business combination on the date when control is obtained.

On a case-by-case basis for each business combination transaction, NTT Group chooses to measure non-controlling interests in the acquiree either at fair value or, alternatively, as a proportion of the identifiable net assets in the acquired company recognized by NTT Group. In case of business combinations achieved in stages, the equity interest in the acquired company previously held by NTT Group is remeasured at fair value on the date when control is obtained. Any differences arising from remeasurements are recognized in profit or loss or other comprehensive income, and then transferred to retained earnings.

The amount of other comprehensive income pertaining to changes in the amount of interests in the acquired company which was recorded prior to the date when control was obtained is accounted for using the same method as would be used if NTT Group were to directly dispose of those interests, and is recognized in profit or loss or other comprehensive income.

If the initial accounting for business combinations is not completed by the end of the fiscal year, NTT Group reports provisional amounts for those items related goodwill, identifiable assets acquired and liabilities assumed. Subsequently, if any new facts and circumstances are found to have existed as of the date when control was obtained, and if such facts or circumstances are deemed to affect the recognized amount of the business combination, the provisional amounts as of the date when control was obtained are retrospectively adjusted for up to one year from the date when control is obtained.

NTT Group has applied the exemptions set forth under IFRS 1 and has not applied IFRS 3 “Business Combinations” retrospectively for any business combinations that occurred prior to April 1, 2002. Goodwill generated by business combinations that occurred prior to April 1, 2002 is recognized at its carrying amount under U.S. GAAP. Goodwill generated by business combinations prior to the IFRS transition date was tested for impairment as of the transition date, regardless of whether there was any indication of impairment.

Description about business combinations is presented in “Note 7. Business Combinations and Acquisition of Non-controlling Interests.”

(3) Foreign Currency Translation

(i) Transactions denominated in foreign currencies

The financial statements of NTT Group companies are prepared in their functional currency. Any transactions in currencies other than the functional currency (i.e., in a foreign currency) are translated using the exchange rate at the transaction date.

The exchange rate used for translation assets and liabilities denominated in foreign currencies into the functional currency

Items	Measurement method	Exchange rate	Example
Monetary assets and liabilities denominated in foreign currencies*1	-	At the end of the fiscal year	Trade receivables
Non-monetary assets and liabilities denominated in foreign currencies*2	Fair value	At the date of measurement fair value	Financial assets measured at fair value through other comprehensive income (equity instruments)
	Cost	At the transaction date	Property, Plant and Equipment

*1. Monetary assets and liabilities : The right to receive a fixed or a determinable number of monetary units (Assets) or the obligation (Liabilities) to deliver them.

*2. Non-monetary assets and liabilities : Assets and liabilities that do not have the characteristics of *1

Translated into the functional currency using the exchange rate at the end of the fiscal year. Non-monetary assets and liabilities in foreign currencies that are measured at fair value are translated into the functional currency using the exchange rate on the date when the fair value was measured. Non-monetary assets and liabilities in foreign currencies that are measured at cost are translated using the exchange rate at the transaction rate.

Foreign currency translation differences are recognized in profit or loss. However, translation differences arising from financial assets that record subsequent changes in the fair value in other comprehensive income (equity instruments) and cash flow hedges (only to the extent the hedge is effective) are recognized in other comprehensive income.

(ii) Foreign operations (foreign subsidiaries)

In order to prepare the consolidated financial statements, the assets and liabilities of foreign operations (including any goodwill arising from acquisitions and fair value adjustments) are translated into Japanese yen using the exchange rate at the end of the fiscal year.

Revenue, expenses and cash flows are translated into Japanese yen using the average exchange rate for the period. However, if this translation result does not approximate the result using the exchange rate at the transaction date, the exchange rate at the transaction date is used for translation.

Foreign currency translation differences arising from the translation of foreign currency-denominated financial statements of foreign operations are recognized in other comprehensive income and accumulated in other components of equity.

If the control or significant influence over a foreign operation is lost, any accumulated foreign currency translation differences related to the foreign operation are recognized in profit or loss in the accounting period in which the control or influence is lost.

(4) Financial Instruments

On the transition date to IFRS and the previous fiscal year, the previous accounting standards (U.S. GAAP) were applied pursuant to the exemptions under IFRS 1 relating to IFRS 7 “Financial Instruments: Disclosures” and IFRS 9. For the fiscal year ended March 31, 2019, IFRS 7 and IFRS 9 have been applied, with the accounting policies described below.

Accounting policies based on IFRS 7 and IFRS 9 applied to the fiscal year ended March 31, 2019

(i) Financial assets

Recognition, classification, and measurement of financial assets

NTT Group recognizes these assets on the dates when NTT Group becomes party to the contract. Financial assets are classified as (a) financial assets measured at amortized cost, (b) financial assets measured at fair value through other comprehensive income, or (c) financial assets measured at fair value through profit or loss.

If the contractual rights to the cash flows of the financial asset expire, or if the contractual rights to receive the cash flows of the financial asset are transferred and substantially all the risks and rewards of ownership of the financial asset are thereby transferred, the financial asset is derecognized and excluded from the consolidated statement of financial position.

(a) Financial assets measured at amortized cost

Of loans and other similar debt instruments, financial assets that satisfy both of the following conditions are classified as financial assets measured at amortized cost:

- The financial asset is held within a business model* whose objective is to hold financial assets in order to collect contractual cash flows (collecting contractual cash flows, selling financial assets or both).
- *business model: An entity’s business model refers to how an entity manages its financial assets in order to generate cash flows.
- The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

On initial recognition, these financial assets are measured at fair value plus any transaction costs directly attributable to the acquisition of the financial asset. Based on the timing of the payment of consideration for goods and services provided, the effect of the time value of money is immaterial, and trade receivables are initially measured at their transaction price without adjustment of the effect of the time value of money.

After initial recognition, they are measured at amortized cost by deducting loss allowance from the gross carrying amount calculated applying the effective interest method.

(b-1) Financial assets measured at fair value through other comprehensive income (debt instruments)

Of corporate bonds and other similar debt instruments, debt instruments that satisfy both of the following conditions are classified as “financial assets measured at fair value through other comprehensive income.”

- The financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets.
- The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

At the time of initial recognition, these financial assets are measured at fair value plus any transaction costs directly attributable to the acquisition of the financial asset. After initial recognition, they are measured at fair value and any subsequent changes in the fair value are recognized in other comprehensive income. Cumulative gains or losses previously recognized in other comprehensive income are reclassified to profit or loss when the asset is derecognized due to sales and other reasons.

(b-2) Financial assets measured at fair value through other comprehensive income (equity instruments)

At initial recognition, an entity may make elect (irrevocable to change after the election) to present in other comprehensive income subsequent changes in the fair value of an investment in an equity instrument such as stock that is not held for trading. NTT Group makes this designation for each financial instrument.

At the time of initial recognition, these financial assets are measured at fair value plus any transaction costs directly attributable to the acquisition of the financial asset. After initial recognition, they are measured at fair value and any subsequent changes in the fair value are recognized in other comprehensive income. Cumulative other comprehensive income recognized in “Other components of equity” is transferred to retained earnings and not to profit or loss, when these financial assets are derecognized. Dividends are recognized in profit or loss.

(c) Financial assets measured at fair value through profit or loss

Financial assets such as derivatives, other than those mentioned in (a), (b-1) and (b-2), are classified as financial assets measured at fair value through profit or loss.

At the time of initial recognition, these financial assets are measured at fair value, and any transaction costs directly attributable to the acquisition of the financial asset are recognized in profit or loss when incurred. After initial recognition, they are measured at fair value, with any subsequent changes in the fair value recognized in profit or loss.

Impairment of financial assets

NTT Group determines the amount of impairment loss (loss allowance) for financial assets measured at amortized cost, financial assets measured at fair value through other comprehensive income (debt instruments), lease receivables, contract assets, financial guarantee contracts, and loan commitments, based on the expected credit losses measured as below:

- If, at the end of the fiscal year, the credit risk on a financial asset has not increased significantly since initial recognition, the loss allowance is measured using the amount of the expected credit losses from a possible default within 12 months after the reporting date (12-month expected credit losses).
- If, at the end of the fiscal year, the credit risk on a financial asset has increased significantly since initial recognition, the loss allowance is measured using the amount of the expected credit losses from all possible defaults over the expected life of the financial instrument (lifetime expected credit losses).

Notwithstanding the above, the amounts of loss allowance for trade receivables and contract assets that do not include significant financial elements and lease receivables are always measured using the amount of the lifetime expected credit losses.

NTT Group recognizes and measures the expected credit losses as follows:

(i) Measurement of the expected credit losses on trade and other receivables, and other assets (including lease receivables and contract assets)

The Group measures the expected credit losses on trade and other receivables, and other financial assets (including lease receivables and credit card receivables).

The reserve matrix is designed to calculate loss allowance for the balance of each receivable at the end of the fiscal year based on the classification of receivables by the delinquency period and the default rate for each delinquency period.

The default rates are determined based on historical credit loss experience during the life of each receivable and adjusted for forward-looking estimates (including the probability of deterioration of economic environment during the following fiscal year).

(ii) Measurement of the expected credit losses on other financial assets (debt securities, trade loan receivables and others)

The Group determines whether credit risk of financial assets has increased significantly since initial recognition by considering reasonable and supportable information. This information includes past information, external ratings, past due information, as well as forward-looking information.

The Group determines that credit risk has increased significantly since initial recognition when, for example, a borrower falls under any of the following conditions:

- the external rating of the borrower is deemed ineligible for investment; or
- the delinquency period exceeds 30 days.

The Group defines that a default has occurred when a borrower falls under any of the following conditions:

- it is judged that there is almost no possibility that the borrower pays obligations to the Group without executing the security interest; or
- the delinquency period exceeds 90 days.

The Group divides financial instruments by the following groups and measures the expected credit losses on a collective basis:

- types of financial products
- geographic locations of borrowers

The Group determines that a financial asset has been impaired when any of the following situations is confirmed:

- significant financial difficulty of the issuer or borrower;
- a breach of contract, such as a default or past due event;
- the lender(s) of the borrower, for economic or contractual reasons relating to the borrower's financial difficulty, having granted to the borrower a concession(s) that the lender(s) would not otherwise consider;
- it is becoming probable that the borrower will enter bankruptcy or other financial reorganization;
- the disappearance of an active market for that financial asset because of financial difficulties; or

A financial asset is written off when there is no reasonable expectations of recovering it in its entirety or a portion thereof.

If the contractual terms of a financial asset has been modified and the financial asset has not been derecognized, NTT Group assesses whether there has been a significant increase in the credit risk of the financial asset by comparing:

- (a) the risk of a default occurring at the reporting date (based on the modified contractual terms); and
- (b) the risk of a default occurring at initial recognition (based on the original, unmodified contractual terms).

(iii) Measurement of the expected credit losses on loan commitments and financial guarantee contracts

As the expected credit losses on the unexecuted balance of loan commitments related to the credit card business cannot be identified separately from those related to the credit card receivables, they are recognized together with the loss allowance on credit card receivables. The measurement method in (ii) above is followed to determine whether the unexecuted balance of loan commitments related to loan receivables and the credit risk of financial guarantee contracts have significantly increased since initial recognition.

(iv) Others

In estimating the expected credit losses, unemployment rates are incorporated as forward-looking information. There is no change in the estimation technique or important assumptions used in estimating the expected credit losses during the reporting period.

(ii) Financial liabilities

At initial recognition, all financial liabilities are classified as financial liabilities measured at amortized cost, with the exception of those financial liabilities that are measured at fair value through profit or loss. NTT Group initially recognizes these financial liabilities on the dates when NTT Group becomes party to the contracts.

A financial liability is derecognized and excluded from the consolidated statement of financial position when it is extinguished, i.e., when the obligation specified in the contract is discharged or cancelled or expires.

Financial liabilities measured at amortized cost

Of financial liabilities such as loans and corporate bonds, those that are not measured at fair value through profit or loss are classified as financial liabilities measured at amortized cost. At initial recognition, these financial liabilities are measured at fair value minus any transaction costs directly attributable to the issuance of the liability. After initial recognition, such liabilities are measured at amortized cost applying the effective interest rate method.

Financial liabilities measured at fair value through profit or loss

Financial liabilities held for trading and measured at fair value through profit or loss, such as derivatives, are measured at fair value at the time of initial recognition. These financial liabilities continue to be measured at fair value after initial recognition, with any subsequent changes recognized in profit or loss.

(iii) Derivatives and hedge accounting

Objective of derivative transactions

NTT Group formulates risk management policies for hedging foreign currency risk and interest rate risk, as well as conducts derivative transactions, such as forward foreign exchange contracts, interest rate swaps, and currency swaps. The Group does not conduct derivative transactions for speculative purposes.

At the inception of a hedging transaction, NTT Group designates the hedging relationship and documents a risk management objective in conducting the hedge transaction. This documentation includes the designation of hedging instruments, the items or transactions being hedged, the nature of the risks being hedged, and methods for assessing the effectiveness of the hedging instruments used in offsetting changes in the fair value or in cash flows of the hedged items.

Assessment of hedging effectiveness

NTT Group confirms that an economic relationship exists between the hedged item and the hedging instrument, which offsets changes in the cash flows of the hedged item against changes in the cash flows of the hedging instrument through qualitative and quantitative assessments. The qualitative assessment concludes whether the critical terms of the hedging instrument and the hedged item match or are closely aligned, and the quantitative assessment concludes whether the hedged item and the hedging instrument is in a relationship that offset their value changes arising from the same risk.

At the inception of the hedging relationship, NTT Group estimates the ratio of the change in the value of the hedged item resulting from the change in the value of the hedged item to the change in the value of the hedging instrument and determine the required quantity of hedging instruments. In principle, the hedge ratio is 1: 1..

Generally, no material hedge ineffectiveness is expected to arise as the Group conducts highly effective hedging transactions.

Recognition and measurement

Derivatives are initially recognized at fair value. After initial recognition, they are measured at fair value and subsequent changes are accounted for as follows:

Cash flow hedges

As a cash flow hedge, NTT Group designates forward exchange contracts to fix the changes in the cash flows of foreign currency-denominated receivables and payables, foreign currency-denominated firm commitments, and foreign currency-denominated forecast transactions. It also designates interest rate swaps and currency swaps to fix floating interest on floating-rate assets and liabilities.

Of the changes in the fair value of derivatives that are hedging instruments, the portions determined to be effective are recognized in other comprehensive income, with the cumulative changes recognized in "Other components of equity." In the accounting period in which the gain or loss on the hedged item is recognized, the cumulative amount recognized in other components of equity is transferred to profit or loss. If, however, the hedged item is a forecast transaction that gives rise to a non-financial asset or liability, the amount cumulatively recognized in "Other components of equity" is transferred as an adjustment to the initial carrying amount of the non-financial asset or liability. The ineffective portion of the changes in the fair value of derivatives as hedging instruments is recognized in profit or loss. As hedging instruments of cash flow hedges, NTT Group designates only the change in the value of the spot element of a forward exchange contract and the change in the fair value of a currency swap excluding that of the foreign currency basis spread.

In the current fiscal year, the impact of the amounts that have been recognized in profit or loss due to hedge ineffectiveness or for the portions excluded from the assessment of hedge effectiveness is not material. The amount of the effect of the termination of hedge accounting and the reclassification of the valuation difference on cash flow hedges because the occurrence of forecasted transactions was not expected into profit or loss were not material.

Fair value hedges

As a fair value hedge, NTT Group designates currency swaps for hedging the risks of changes in the fair values of foreign currency-denominated receivables and payables and foreign currency-denominated firm commitments, and interest rate swaps for transforming fixed interest on fixed-rate assets and liabilities to floating interest.

Changes in the fair value of derivatives that are hedging instruments are recognized in profit or loss. Changes in the fair value of hedged items that correspond to hedged risk adjust the carrying amounts of the hedged items and are recognized in profit or loss.

Derivatives not designated as hedging instruments

NTT Group has entered into forward exchange contracts, interest rate swap agreements, currency swap agreements, currency option agreements, and forward contracts to mitigate the risks from changes in interest rates and foreign exchange rates, of which there are some agreements to which hedge accounting is not applied. Changes in the fair value of derivatives are recognized in profit or loss.

<Accounting policies under U.S. GAAP applied as of the transition date to IFRS and the previous fiscal year>

(i) Equity securities and debt securities

NTT Group's equity securities and debt securities are classified and accounted for as follows:

Equity securities and debt securities classified as marketable available-for-sale securities

Unrealized gains and losses, which are the differences between fair values and costs, are reported in "Other components of equity," net of taxes. The Group periodically reviews the necessity of recognizing impairment losses for instances in which the fair value of the security has declined below cost and the decline is not temporary. If this evaluation indicates that there is an impairment that is other than temporary, an impairment loss is recorded for the amount that the cost of the security exceeds the fair value.

Non-marketable equity securities and equity securities with restrictive conditions on transfer

NTT Group has entered into forward exchange contracts, interest rate swap agreements, currency swap agreements, currency option agreements, and forward contracts to mitigate the risks from changes in interest rates

and foreign exchange rates, of which there are some agreements to which hedge accounting is not applied. These securities are accounted for at cost.

Debt securities classified as held to maturity

These securities are carried at amortized cost. Any amount that the carrying amount exceeds the net realizable value is recorded as an impairment loss, unless such declines are deemed to be temporary. Realized gains and losses are determined using the average cost method and recognized in profit or loss.

(ii) Allowance for doubtful accounts

NTT Group records allowances for doubtful accounts to prepare for losses on bad debts. For receivables that have similar credit risks and are not evaluated individually, the allowance for doubtful accounts is determined using historical credit loss ratios for each classification of receivables. For receivables that are individually evaluated, the allowance for doubtful accounts is determined based on the individual uncollectible amounts of the receivables. If receivables are determined to be uncollectible due to, among other factors, the condition of the debtor, they are written off upon such determination.

Of financial receivables including loans and lease receivables, the main receivables held by the financial subsidiaries are monitored for past due status by the period of the past due date. Accrual of interest is discontinued on financial receivables for which contractual interest is not expected to be received because of the past due status and other factors.

(iii) Derivative financial instruments (derivatives)

Risk management policy

NTT Group uses derivatives to manage the risk of changes mainly in foreign exchange rates and interest rates. The Group does not conduct derivative transactions for speculative purposes.

NTT Group stipulates in a formal documentation all hedge relationships between hedging instruments and hedged items, as well as its risk management policies for conducting hedging transactions. This documentation specifies all derivatives and hedged items of (1) specific assets or liabilities on the consolidated statement of financial position or (2) specific firm commitments or forecast transactions, all of which are designated as fair value hedges or cash flow hedges

Presentation and measurement

All derivatives are recognized at fair value either as an asset or a liability, and recorded in “Other financial assets (current),” “Other financial assets (non-current),” “Other financial liabilities (current),” or “Other financial liabilities (non-current)” in the consolidated statement of financial position. Each derivative is categorized as current or non-current depending on whether the term to maturity of the derivative is 12 months or less, or over 12 months. Changes in the fair value of the derivative are recognized in profit or loss, or equity (other components of equity) depending on whether the derivative is recognized as a hedge transaction and whether the derivative is intended to hedge changes in fair value or cash flows.

Cash flows from financial instruments to which hedge accounting is applied are recorded in the same section as hedged items in the consolidated statement of cash flows.

The fair values of forward exchange contracts, interest rate swaps, currency swaps, currency options, and forward transactions are measured using market prices based on observable market data provided by financial institutions.

Assessment of hedge effectiveness

NTT Group assesses, at the inception of the hedging transaction and at least quarterly on an ongoing basis, whether the derivatives that are used in hedging transactions have been highly effective in offsetting changes in the fair value or cash flows of hedged items and whether those derivatives may be expected to remain highly effective in future periods. When it is determined that a derivative is not highly effective in a hedging transaction, the Group discontinues applying hedge accounting. The amounts representing hedges’ ineffectiveness and gains or losses on derivatives that are excluded from the assessment of hedge effectiveness are reported as “Finance income” or “Finance costs” in the consolidated statement of profit or loss.

Fair value hedges

Derivative transactions classified as fair value hedges are designated for recognized assets and liabilities, or for unrecognized firm commitments. Changes in the fair value of hedge-effective derivatives are recorded in profit or loss and offset with changes in hedged assets and liabilities.

Cash flow hedges

Derivative transactions classified as cash flow hedges are designated as hedges against the risk of changes in cash flows of forecast transactions or recognized assets and liabilities. Changes in the fair value of hedge-effective derivatives are firstly included in "Other components of equity" and then reclassified to profit or loss at the point in time when the hedge transaction affects profit or loss.

NTT Group has debt obligations denominated in foreign currencies and is exposed to the risk of foreign exchange fluctuations. By concluding forward exchange contracts or currency swaps, future cash flows of principal and interest on these debt obligations are fixed into Japanese yen.

The Group also has floating-rate long-term borrowings. With interest swap contracts to change fixed payments to floating payments, future cash flows of interest expenses are fixed. In the previous and current fiscal years, these cash flow hedges are effective, and the portions that are ineffective or not assessed for effectiveness are not material.

Derivatives to which hedge accounting is not applied

Even when hedge accounting is not applied, there are some cases where derivatives are used to hedge certain economic risks. In these cases, changes in the fair value of derivatives are recognized in profit or loss.

Description about financial instruments is presented in "Note 12. Other Financial Assets," "Note 19. Short-Term Borrowings and Long-Term Borrowings," "Note 22. Other Financial Liabilities," and "Note 31. Financial Instruments." Description about finance income and finance costs is presented in "Note 29. Finance Income and Finance Costs."

(5) Fair Value

The fair value of financial instruments is determined based on market information including market prices, and calculation techniques such as the market approach, income approach, and cost approach.

The assumptions (inputs) for valuation techniques used to measure fair value are required to be categorized into three levels based on their observability. The use of more observable inputs is required in valuation techniques. NTT Group categorizes the assumptions (inputs) used to measure fair value into the following three levels and puts Level 1 measurements as the highest priority:

- Level 1

Unadjusted market prices of identical assets or liabilities in active markets that the company can access at the measurement date

- Level 2

Of the inputs that are directly or indirectly observable, such as a market price of a similar asset or liability in an active market or a market price of an identical or similar asset or liability in an inactive market, those inputs that are other than market prices included in Level 1

- Level 3

Unobservable inputs for assets or liabilities

Changes between these levels are recognized as having occurred at the end of each quarter.

Description about the assumptions (inputs) used to measure fair value is presented in "Note 14. Property, Plant and Equipment (3) Impairment Losses," "Note 15. Goodwill and Intangible Assets (3) Impairment Tests for Goodwill and Intangible Assets with Indefinite Useful Lives," "Note 16. Investment Property (3) Fair Value," "Note 31. Financial Instruments (3) Fair Value of Financial Instruments," and "Note 37. First-Time Adoption of IFRS (3) Notes on Adjustments to Equity and Comprehensive Income."

(6) Cash and Cash Equivalents

Cash and cash equivalents consist of following items:

- cash at hand
- deposits that can be withdrawn as required
- short-term investments that can be readily converted to cash and only have an insignificant risk of changes in value whose term to maturity falls within three months of the acquisition date.

Description of cash and cash equivalents is presented in “Note 8. Cash and Cash Equivalents.”

(7) Inventories

Inventories consist of telecommunications terminal equipment, materials to be sold, work in progress, and supplies, which are measured at the lower of cost and net realizable value (net realizable value is the estimated selling price in the ordinary course of business less estimated costs to sell). The costs of telecommunications terminal equipment and materials to be sold are determined on a first-in, first-out basis. The cost of work in progress is mainly attributable to software production pursuant to contracts with customers and construction of real estate held for sale, including labor and subcontractors’ costs. The cost of supplies is determined by the average cost method or the specific identification method.

Description of inventories is presented in “Note 13. Inventories.”

(8) Property, Plant and Equipment

Property, plant and equipment are measured using the cost model, which deducts accumulated depreciation and accumulated impairment losses from cost. The cost includes expenses directly attributable to the acquisition of an asset and the cost of borrowings to be capitalized.

Depreciation is calculated principally using the straight-line method over the estimated useful life of each component. The depreciable amount is calculated by deducting the residual value of an asset from the cost of the asset. Land and construction in progress are not depreciated.

The estimated useful lives of major items of property, plant and equipment are as follows:

Telecommunications equipment	
Digital switch equipment (including wireless communication equipment)...	8 to 16 years
Telecommunications service lines	
Cables.....	13 to 36 years
Tubes and tunnels.....	50 years
Buildings and structures	
Reinforced concrete buildings.....	42 to 56 years
Machinery, tools and fixtures.....	3 to 26 years

NTT Group reviews the depreciation methods, useful lives, and residual values at the end of each fiscal year. Any changes are accounted for as changes in accounting estimates on a prospective basis.

Description of property, plant and equipment is presented in “Note 14. Property, Plant and Equipment.”

(9) Goodwill

NTT Group measures goodwill as the excess amount if the sum of the transferred consideration and the amount of the non-controlling interests in the acquired company exceeds the net amount of identifiable assets and liabilities on the date when control of the company is obtained.

Goodwill is not amortized, but tested for impairment whenever there is an indication of impairment in cash-generating units to which goodwill is allocated, and at the same time every year irrespective of whether there is any indication of impairment.

Description regarding the impairment of goodwill is presented in “Note 3. Significant Accounting Policies (13) Impairment.” Goodwill is accounted for in the consolidated statement of financial position at the carrying amount determined by deducting the accumulated impairment losses from the cost.

Description of goodwill is presented in “Note 15. Goodwill and Intangible Assets.”

(10) Intangible Assets

Intangible assets are measured using the cost model, which deducts the accumulated amortization and accumulated impairment losses from the cost.

Intangible assets individually acquired are measured at cost at initial recognition. Intangible assets acquired through business combinations are recognized separately from goodwill at the time of initial recognition and are measured at fair value as of the date when control is obtained. Research and development expenses incurred within NTT Group are recognized as intangible assets (internally generated intangible assets) when expenditures for development activities meet the requirements for capitalization, measured at the time of initial recognition as the sum of expenditures incurred from the date when all requirements for capitalization are met, to the date when the development is completed. Other expenditures are expensed when incurred. Description of research and development expenses that are expensed is presented in “Note 28. Operating Expenses.”

Some intangible assets have definite useful lives, while others do not.

Intangible assets with definite useful lives are amortized using the straight-line method over the estimated useful lives of the assets.

The main intangible asset with a definite useful life is computer software. Internal-use software is capitalized if it has a useful life of more than one year. Subsequent costs of adding to, modifying, or improving internal-use software is capitalized only to the extent that they add new functions to the software. Software maintenance and training costs are expensed as incurred. Capitalized computer software is amortized on a straight-line basis over approximately five to seven years.

NTT Group reviews the amortization method, useful lives, and residual values at the end of each fiscal year. Any changes are accounted for as changes in accounting estimates on a prospective basis.

The main intangible assets with indefinite useful lives are trademarks and trade names.

NTT Group does not amortize intangible assets with indefinite useful lives or intangible assets that are not yet available for use, but test them for impairment whenever there is an indication of impairment, and at the same time every year irrespective of whether there is any indication of impairment. Description regarding the impairment of such assets is presented in “Note 3. Significant Accounting Policies (13) Impairment.”

Description of intangible assets is presented in “Note 15. Goodwill and Intangible Assets.”

(11) Leases

Identification and classification

NTT Group determines whether or not a contract constitutes a lease or contains a lease based on the actual substance of the contract at the commencement date of the contract.

Lease transactions are classified as finance leases when they transfer to the lessee substantially all the risks and rewards incidental to ownership of the asset, while other lease transactions are classified as operating leases.

Substantially all the risks and rewards incidental to ownership of the asset are deemed to have been transferred if the lease term accounts for the majority of the asset's economic life, or if the present value of the minimum lease payments is approximately equivalent to the full fair value of the asset. The lease term is set as the sum of the non-cancellable period and periods during which a renewal option is considered reasonably certain to be exercised on the commencement date of the lease.

Recognition and measurement

(i) Finance lease transactions

(As lessee)

Lease assets and lease liabilities are initially recognized at the lower of the fair value of the lease asset at the commencement date and the present value of the total minimum lease payments.

After initial recognition, the accounting treatment for the asset will be based on the accounting policies applicable to the asset. Lease payments are allocated to finance costs and repayments of lease liabilities, and finance costs are calculated so that they produce a constant periodic rate of interest on the remaining balance of the lease liability.

Assets held under finance leases are depreciated over their estimated useful lives in cases where transfer of ownership is certain by the end of the lease term, or over the shorter of the lease term and the estimated useful life of the lease asset in cases where transfer is not certain.

(As lessor)

The net investment in the lease is recognized as a lease receivable, and the total lease payment receivable is allocated to an amount equivalent to principal of the lease receivable and an amount equivalent to interest. The amount allocated to interest on the lease payment receivable is calculated using a method that reflects a constant periodic rate of return on the lessor's net investment in the lease. The net investment in the lease is the sum of the uncollected lease payment receivable by a lessor under a finance lease and any unguaranteed residual value (the portion of the residual value of the lease assets, which a lessee does not guarantee, or only a party related to the lessor guarantees), discounted by the interest rate implicit in the lease.

(ii) Operating lease transactions

(As lessee)

The total lease payment payable over the term of the operating lease is recognized as an expense using the straight-line method over the lease term.

(As lessor)

The total lease payment receivable over the term of the operating lease is recognized as revenue using the straight-line method over the lease term.

Description of leases is presented in "Note 14. Property, Plant and Equipment (2)Lease Assets" and "Note 20. Leases."

(12) Investment Property

Investment property is real estate held to earn rentals, or capital gains on sales and other dispositions, or both. It does not include property sold in the ordinary course of business, property used in the production or sale of goods or services, or property used for any other administrative purposes.

After initial recognition, NTT Group measures investment property using the cost model, which deducts accumulated depreciation and accumulated impairment losses from cost.

With the exception of land, investment property is depreciated over its estimated useful life primarily based on the straight-line method, with an estimated life of 2 to 50 years. NTT Group reviews the depreciation method, useful lives, and residual values at the end of each year, and any changes are accounted for as changes in accounting estimates on a prospective basis.

Description of investment property is presented in “Note 16. Investment Property”.

(13) Impairment

NTT Group determines whether there are any indications of impairment of property, plant and equipment, intangible assets, and investment property at each reporting date. The recoverable amount in the impairment test is calculated as the higher of either the value in use or the fair value less disposal costs. The value in use is calculated by discounting estimated future cash flows to present value using a pre-tax discount rate that reflects the time value of money and the inherent risk of the asset.

(i) Impairment of property, plant and equipment, intangible assets, and investment property

If there are indications of impairment, the recoverable amounts are estimated. If the recoverable amount of individual assets cannot be estimated, an estimate is made of the recoverable amount for the cash-generating unit to which the asset belongs. A cash-generating unit is the smallest unit of an asset group that generates cash inflows that are largely independent of the cash inflows from other assets or asset groups.

Intangible assets with indefinite useful lives and intangible assets that are not yet available for use are tested for impairment whenever there is an indication of impairment, and at the same time every year irrespective of whether there is any indication of impairment.

In the event that the recoverable amount of the asset or the cash-generating unit falls below the carrying amount, the carrying amount is reduced to the recoverable amount and the impairment loss is recognized in profit or loss.

On each reporting date, NTT Group assesses whether there is any indication that an impairment loss recognized in prior years may no longer exist or may have decreased. If any such indication exists, NTT Group estimates the recoverable amount of the asset or cash-generating unit. In the event that the recoverable amount exceeds the carrying amount of the asset or the cash-generating unit, the impairment loss is reversed, with the upper limit set at the lower of (i) the recoverable amount and (ii) the carrying amount net of amortization or depreciation that would have been determined if no impairment loss had been recognized in prior years. There was no reversing an impairment loss for the fiscal years ended March 31, 2018 and March 31, 2019.

(ii) Impairment of goodwill

Goodwill is allocated to cash-generating units or groups of cash-generating units that are expected to enjoy the benefits resulting from the business combination. Goodwill is tested for impairment whenever there is an indication of impairment in the cash-generating units, and at the same time every year irrespective of whether there is any indication of impairment. If the recoverable amount of the cash-generating unit is less than its carrying amount in the impairment test, the impairment loss is deducted from the carrying amount of goodwill allocated to the cash-generating units or groups of cash-generating units. It is then deducted from the carrying amount of each asset in proportion to the carrying amounts of the assets other than goodwill in the cash-generating unit or groups of cash-generating units.

Impairment losses for goodwill are recognized in profit or loss and are not reversible in the subsequent periods.

Description of impairment losses for property, plant and equipment is presented in “Note 14. Property, Plant and Equipment (3) Impairment Losses,” for goodwill and intangible assets is presented in “Note 15. Goodwill and Intangible Assets (3) Impairment Tests for Goodwill and Intangible Assets with Indefinite Useful Lives,” and for investment property is presented in “Note 16. Investment Property (2) Impairment Losses.”

(14) Employee Benefits

NTT Group primarily has defined contribution plans and defined benefit plans.

(i) Defined contribution plans

Contributions to the defined contribution plans are recognized as expenses when an employee renders service each fiscal year. Unpaid contributions are recognized as liabilities.

(ii) Defined benefit plans

Liabilities recognized in connection with the defined benefit plans (defined benefit liabilities) are determined by deducting the fair value of the plans assets from the present value of the defined benefit obligations as of the end of the fiscal year.

Defined benefit obligations are calculated by an independent pension actuary using the projected unit credit method. In the projected unit credit method, each period of service gives rise to an additional unit of benefit entitlement in exchange for services provided by an employee, and each unit is measured separately to build up the final obligation. Costs pertaining to the defined benefit plans are composed of service costs, interest on the net amount of defined benefit liabilities and assets, and remeasurements of the net amount of defined benefit liabilities and assets. Service costs and interest are recognized in profit or loss. Interest amounts are calculated using discount rates determined by referring to the market yields on high-quality corporate bonds as of the fiscal year end that reflect the estimated timing and amount of benefit payments.

Remeasurements of the net amount of assets and liabilities in the defined benefit plans consist of actuarial gains and losses and the return on plan assets (excluding amounts included in interest). They are recognized in other comprehensive income, with the cumulative amount being promptly reclassified from “Other components of equity” to retained earnings.

Description of employee benefits is presented in “Note 23. Employee Benefits.”

(15) Provisions

Provisions are recognized in cases where NTT Group has present legal or constructive obligations as a result of past events, as well as where it is probable that the obligations will be required to be settled and when it is possible to reliably estimate the amount of the obligation. A constructive obligation is an obligation that derives from an entity’s actions where by an established pattern of past practice, published policies, or others, and the entity has created a valid expectation on the part of those other parties that it will discharge those responsibilities.

Using a pre-tax interest rate that reflects the time value of money, provisions are measured by discounting the estimated future cash flows to the present value, taking into account the risks and uncertainties related to the obligation as of the fiscal year end.

The provisions that NTT Group recognizes are primarily asset retirement obligations, provision for environmental measures, and provision for point programs.

(i) Asset retirement obligations

NTT Group recognizes legal obligations related to the disposal of property, plant and equipment as asset retirement obligations, and upon recognition the carrying amount of the related asset is increased.

NTT Group considers its main legal obligations to be the restoration of leased land and buildings for installing telecommunications equipment to their original condition and recognizes these as asset retirement obligations.

(ii) Provision for environmental measures

This provision records the estimated amount of expenditures needed to provide for environmental protections, such as polychlorinated biphenyl (PCB) waste treatment and soil improvement work.

(iii) Provision for point programs

NTT Group grants “points” to customers based on the usage of mobile, credit card service, and other services, which may be appropriated to payments on merchandise and mobile phone charges. In determining the provision for point programs, point usage rates and other calculation elements are estimated, reflecting the portion of points that is expected to expire due to future cancellation and other reasons when such portion can be estimated.

Description of provisions is presented in “Note 24. Provisions.”

(16) Revenue

Revenue is recognized at an amount of the consideration to which NTT Group expects to be entitled in exchange for the goods or services transferred to customers based on the following five-step approach, excluding interest and dividend revenues pursuant to IFRS 9 and insurance premium revenues pursuant to IFRS 4.

Step 1: Identifying the contract with the customer

Step 2: Identifying performance obligations in the contract

Step 3: Determining the transaction price

Step 4: Allocating the transaction price to separate performance obligations in the contract

Step 5: Recognizing revenue when or as the performance obligation is satisfied

The part of incremental costs of obtaining a contract and costs to fulfill a contract with customers that is expected to be recoverable is recognized as an asset. Incremental costs of obtaining a contract are those incurred in obtaining a contract with a customer that would not have incurred if the contract had not been obtained. Costs to fulfill a contract are costs incurred for fulfilling contracts before goods or services are transferred to customers. NTT Group applies the practical expedient of Paragraph 94 of IFRS 15 except for system integration services and expenses incremental cost of obtaining a contract when incurred if the amortization period of the asset that otherwise would have been recognized is less than 1 year.

NTT Group has five business segments: Mobile communications business, Regional communications business, Long distance and international communications business, Data communications business, and Other business. Through these segments, the Group provides the following six services: fixed voice-related services, mobile voice-related services, IP/packet communications services, system integration services, sales of telecommunications equipment, and other services.

(i) Fixed voice-related services

In the Regional communications business segment and Long distance and international communications business segment, fixed voice-related services including telephone subscriber lines, INS-Net, conventional leased circuits, and high-speed digital circuits are provided to customers. NTT Group recognizes revenue upon the provision of fixed voice-related services. Fixed voice-related services are billed monthly.

(ii) Mobile voice-related services

In the Mobile communications business segment, mobile voice-related services including voice call services in LTE (Xi) are provided to customers. NTT Group recognizes revenue upon the provision of mobile voice-related services. Mobile voice-related services are billed monthly.

In some of its billing plans, NTT Group determines an amount of telecommunications traffic (for phone calls) available within the scope of the fixed charge of each billing plan, offering a service of automatically carrying forward to the following month the unused amount of telecommunications traffic. For these services, the portion of revenue corresponding to the voice allowances that are unused in the current month but are expected to be used in the following month or afterward is deferred, and deferred amounts are recognized as revenue when such allowances are used.

In addition, NTT Group offers a point program whereby points are granted to customers depending on their use of mobile voice-related services and the points can be appropriated to payments on merchandise and mobile phone charges. The portion of granted points which is expected to be used by customers in future is recognized as a performance obligation. Transaction prices are allocated based on the ratios of independent selling prices of these performance obligations. Transaction prices allocated to the performance obligations under the point program are deferred as “Other current liabilities” in the consolidated statement of financial position, and revenue is recognized as the points are used.

Revenue from activation fees, which constitute revenue from non-recurring upfront fees, are deferred and recognized as revenue over the period in which monthly support services are provided.

(iii) IP/packet communications services

In the Mobile communications business segment, services such as the LTE (Xi) packet service and IP/packet communications services including DOCOMO Hikari* are provided. In the Regional communications business segment, services are provided including FLET’S Hikari and Hikari Collaboration Model. In the Long distance and international communications business segment, services such as Arcstar Universal One, IP-VPN, and OCN are provided. The main performance obligations are identified as described below and recognized as revenue based on the contents of these services and the patterns of transfer to customers.

*DOCOMO Hikari: Fiber-optic access services and others are provided on a wholesale basis to various operators by NTT East and NTT West.

Mobile communications business segment

NTT Group recognizes revenue upon the provision of IP/packet communications services.

In some of its billing plans, NTT Group determines an amount of telecommunications traffic (for data communications) available within the scope of the fixed charge of each billing plan, offering a service of automatically carrying forward to the following month the unused amount of telecommunications traffic.

For these services, the portion of revenue corresponding to the data allowances that are unused in the current month but are expected to be used in the following month or afterward is deferred, and deferred amounts are recognized as revenue when such allowances are used.

Regional communications business segment

New sales incentives paid to collaboration model operators for new contracts under the Hikari Collaboration Model are deferred as “Other non-current liabilities” in the consolidated statement of financial position, and are deducted from revenues for three years from the time of payment. The amounts paid as sales incentives for ongoing use at the time of future annual contract renewal are estimated as variable consideration mainly based on historical performance and deducted from revenues for one year from the time of initial contract conclusion or the most recent contract renewal.

Regional communications business segment and Long distance and international communications business segment

NTT Group recognizes revenue upon the provision of IP/packet communications services. IP/packet communications services for consumers are billed monthly and for enterprise customers are billed at the contractually agreed time.

Non-recurring upfront fees such as installation charges and activation fees are deferred and recognized as revenues over the estimated average period of the end customers' subscription for FLET'S Hikari and Hikari Collaboration Model.

Mobile communications business segment, Regional communications business segment, and Long distance and international communications business segment

NTT Group offers a point program whereby points are granted to customers depending on their use of IP/packet communications services and the points can be appropriated to payments on merchandise and mobile phone charges. That portion of granted points which is expected to be used by customers in future is recognized as a performance obligation. Transaction prices are allocated based on the ratios of independent selling prices of these performance obligations. Transaction prices allocated to the performance obligations under the point program are deferred as "Other current liabilities" in the consolidated statement of financial position, and revenue is recognized as the points are used.

(iv) Sales of telecommunications terminal equipment

In the Mobile communications business segment, telecommunications terminal equipment is sold mainly to sales agents. NTT Group recognizes revenue upon delivery of the equipment to sales agents. Upon delivery to sales agents, revenues from sales of telecommunications terminal equipment are recognized after deducting certain agency commissions and incentives given to subscribers. Subscribers have an option to select installment payments for the purchase of handsets from sales agents and others over a period of 12 or 24 months. When installment payments are selected, under the agreements entered into between NTT Group, subscribers, and sales agents, NTT Group makes payments to sales agents for the handsets in place of the subscribers. NTT Group then charges the subscribers for the purchased handsets, together with basic monthly charges and communication charges, over the term of installment payments. Because terminal equipment sales are recognized upon delivery of handsets to sales agents, advance payments for the purchased handsets to sales agents and subsequent cash collection of the installment receivable from subscribers do not impact NTT Group's revenues.

(v) System integration services

In the Regional communications business segment and Long distance and international communications business segment, NTT Group provides system development services and other services, while in the Long distance and international communications business segment and Data communications business segment, the Group provides integrated IT solution services ; both of these services are mainly provided to customers. With respect to system integration services, NTT Group recognizes revenue over the course of the installation period, as the benefits transfer to customers as the installation progresses. As cost is deemed to arise in proportion to the degree of installation progress, the cost-based input method is used for recognition of revenue. Contract consideration is usually invoiced upon delivery.

When losses are expected to arise, an allowance for losses is recognized based on the estimates of all revenues and expenses expected to accrue upon delivery. As a result, revenues and expenses may be reasonably estimated at different stages until completion[AA(1) of benefits transfer. Recognized losses may be reassessed as the contract progresses and are recorded in the consolidated fiscal year in which the factual cause for the loss is confirmed.

(vi) Other services

In the Mobile communications business segment, NTT Group offers services including distribution services of movies, music, and e-books; financial and payment services; shopping services; services to support activities of daily living; and "Mobile Device Protection Service."

In the Regional communications business segment and Other business segment, NTT Group primarily provides services including real estate rentals, building maintenance, systems development, leasing, and research and development.

With respect to these services, NTT Group recognizes revenues either upon delivery or completion of services.

Description of revenues by service is presented in "Note 27. Operating Revenues (1)Disaggregation of Revenues."

(17) Income Taxes

Income taxes consist of current taxes and deferred taxes, and are recognized in profit or loss, excluding taxes arising from business combinations, as well as taxes incurred from items directly recognized in other comprehensive income or equity.

Current taxes

Current taxes are measured as the amount expected to be paid to, or recovered from, the tax authorities. Tax calculations use the tax rates and tax laws that have been enacted or substantively enacted by the end of the fiscal year.

Deferred taxes

Recognition of deferred tax assets

Deferred tax assets are recognized to the extent that it is probable that deductible temporary differences and the unused tax losses and unused tax credits can be utilized against the future taxable profit. The probability of realizing deferred tax assets will depend on whether taxable profit will be available during the periods in which deductible temporary differences will reverse or unused tax losses can be utilized. In this assessment, NTT Group considers the expected level of future taxable profit, tax planning opportunities, and the expected timing of the reversal of deferred tax liabilities. The probability of realizing deferred tax assets depends mainly on the future taxable profit, and NTT Group considers that sufficient taxable profit will be available on an ongoing basis. However, when the estimate of probable future taxable profit for the periods, the net amount of deferred tax assets expected to be realized may be reduced. A reassessment of the recoverability of deferred tax assets is conducted at the end of the fiscal year.

Note that deferred tax assets are not recognized for temporary differences arising from the initial recognition of an asset or liability in a transaction that is not a business combination and that does not affect either accounting profit or taxable profit.

Deferred tax assets are recognized for deductible temporary differences arising from investments in subsidiaries, associates, and interests in joint ventures only if it is probable that the temporary difference will reverse in the foreseeable future and taxable profit will be available against which the temporary difference can be utilized.

Recognition of deferred tax liabilities

Deferred tax liabilities are generally recognized for taxable temporary differences, with the exception of the temporary differences listed below:

- temporary differences arising from the initial recognition of an asset or a liability in a transaction that is not a business combination and that does not affect either accounting profit or taxable profit
- taxable temporary differences arising from the initial recognition of goodwill
- taxable temporary differences arising from investments in subsidiaries, associates, and joint ventures for which the timing of the reversal of the temporary difference can be controlled and it is probable that the temporary difference will not be reversed in the foreseeable future

Measurement of deferred tax assets and liabilities

Deferred tax assets and liabilities are measured using the tax rate expected to be applied at the time the asset is realized or the liability is settled, based on the law that has been enacted or substantially enacted by the end of the fiscal year.

Presentation of deferred tax assets and liabilities

Deferred tax assets and liabilities are offset if NTT Group has a legally enforceable right to offset current tax assets and liabilities and income taxes are imposed on the same taxpayer by the same taxation authority.

Description of income taxes is presented in “Note 18. Income Taxes.”

(18) Earnings per Share

Basic earnings per share (“EPS”) is calculated based on the average number of outstanding shares during the fiscal year (excluding treasury shares). Diluted EPS is calculated by taking into account the effect of dilution caused by the exercise of the rights to issue new shares, the performance of contracts, or the conversion to new shares. However, NTT has not issued dilutive securities for any fiscal year, and there is therefore no difference between basic EPS and diluted EPS.

Description of EPS is presented in “Note 30. Earnings per Share.”

(19) Operating Segments

An operating segment is a component of business activities that earn revenues and incur expenses including revenues and expenses relating to transactions with other operating segments. For the operating results of all operating segments, discrete financial information is available, and the operating results are regularly reviewed by NTT’s Board of Directors to facilitate the allocation of management resources to individual segments and the assessment of performance.

Description of EPS is presented in “Note 6. Segment Information.”

(20) Non-current Assets Held for Sale

Non-current assets that are determined to recover their carrying amount principally through a sale transaction rather than through continuing use, as well as non-current assets that have ceased to be used in an ongoing capacity and that are determined to be disposed of (collectively, the “disposal group”) are classified as held for sale. These assets are measured at the lower of their carrying amount and their fair value less costs to sell. Such assets are not depreciated. An impairment loss is recognized if the fair value less costs to sell falls below the carrying amount. In the event of a subsequent increase in the fair value less costs to sell, the previously recognized impairment loss is reversed. The maximum amount by which the impairment loss can be reversed is the amount of the impairment loss previously recognized. If the asset no longer satisfies the requirements to be held for sale, it will cease to be classified as held for sale. In such case, the asset will be measured at the lower of the applicable carrying amount had it not been classified as held for sale or its recoverable amount as of the date it ceases to meet the requirements to be classed as held for sale.

Description of assets held for sale is presented in “Note 10. Assets Held for Sale.”

(21) Put Options Granted to Non-controlling Shareholders

Generally, short put options on subsidiary shares (the right to sell to NTT Group) that NTT Group has granted to non-controlling interest holders are initially recognized as “other financial liabilities” at the present value of the redemption amounts, with the same amount deducted from additional paid-in capital. After initial recognition, the options are measured at amortized cost using the effective interest rate method, while any subsequent changes in value are recognized as additional paid-in capital.

Description of put options granted to non-controlling interests is presented in “Note 26. Equity and Other Components of Equity (4)Put Options Granted to Non-controlling Interests.”

(22) Treasury Stock

When NTT acquires treasury stock, the consideration paid including direct acquisition costs (after adjustment of tax effect) is recognized as an item of capital deduction. No gain or loss is recognized on the purchase, sale or cancellation of the treasury stock. Any difference in the carrying amount and the consideration paid at the time of sale is recognized as additional paid-in capital.

Description of treasury stock is presented in “Note 26. Equity and Other Components of Equity (1) Issued Shares”

4. Significant Accounting Estimates and Judgments Involving Estimates

In preparing the consolidated financial statements, management makes judgments, estimates, and assumptions that affect the application of accounting policies as well as the amounts reported for assets, liabilities, revenue, and expenses. These estimates and assumptions are based on management's best judgments taking into account various factors that are considered reasonable as of the period end, based on past experience and currently available information. However, due to the nature of such judgments, the actual results in the future may differ from these estimates or assumptions.

Estimates and their underlying assumptions are continuously reviewed. The effect of revisions to accounting estimates is recognized in the consolidated accounting period in which the estimate is revised and in the future consolidated accounting periods.

The judgments, estimates, and assumptions that have a significant impact on NTT Group's consolidated financial statements are as follows:

- The judgments of whether an entity is controlled by NTT Group in determining the scope of consolidation (Note 3. Significant Accounting Policies (1), Note 32. Major Subsidiaries)
- Estimates of the fair value of assets acquired and liabilities assumed in a business combination (Note 3. Significant Accounting Policies (2), Note 7. Business Combinations and Acquisition of Non-controlling Interests)
- Fair value measurements of financial assets measured at fair value through other comprehensive income (FVTOCI) (Note 3. Significant Accounting Policies (4), Note 31. Financial Instruments (2))
- Judgments of whether forecast transactions are eligible hedged items for hedge accounting (Note 3. Significant Accounting Policies (4))
- Estimates of amortization periods and for impairment of financial assets measured at amortized cost (Note 3. Significant Accounting Policies (4), Note 31. Financial Instruments (1))
- Fair value measurements of derivatives (Note 3. Significant Accounting Policies (4), Note 12. Other Financial Assets, Note 22. Other Financial Liabilities, Note 31. Financial Instruments (2), Note 29. Finance Income and Finance Costs)
- Estimates of useful lives of property, plant and equipment, intangible assets and investment property (Note 3. Significant Accounting Policies (8), (10), (11), and (12))
- Estimates for impairment of property, plant and equipment, intangible assets, investment property and goodwill (Note 3. Significant Accounting Policies (13), Note 15. Goodwill and Intangible Assets)
- Measurement of defined benefit obligations (Note 3. Significant Accounting Policies (14), Note 23. Employee Benefits)
- Judgments and estimates for recognition and measurement of provisions (Note 3. Significant Accounting Policies (15), Note 24. Provisions)
- Recognition of revenue (Note 3. Significant Accounting Policies (16), Note 27. Operating Revenue (2)~(4))
- Assessment of recoverability of deferred tax assets (Note 3. Significant Accounting Policies (17), Note 18. Income Taxes)

5. New Standards Not Yet Applied

Of the standards and interpretations that were newly issued or revised before the approval date of the consolidated financial statements, the following are those that have not been adopted early by NTT Group and whose adoption may impact NTT Group:

Standard / Title	Mandatory adoption (“Initial fiscal year”) / NTT Group’s scheduled fiscal year of adoption	Outline of the new / revised standards	Potential impact on consolidated financial statements
IFRS 16 / Leases	January 1, 2019 / Fiscal year ending March 31, 2020	<p>IFRS 16 replaces part of the contents of the existing IAS 17 “Leases” and the main revisions are as follows:</p> <ul style="list-style-type: none"> ▪ Introduction of the concept of control into the concept of definition of leases ▪ Revised accounting treatment for lessees 	<p>The significant impact of adopting this standard will be to record right-of-use assets and lease liabilities for land and other property necessary for the lessees’ offices and installment of telecommunications equipment. NTT Group uses a modified retrospective approach. As a result, the balances of assets and liabilities in the consolidated statement of financial position are expected to increase by approximately ¥530 billion, respectively. However, the impact on the beginning balance of retained earnings and basic earnings will be immaterial.</p>

6. Segment Information

NTT Group’s business segments are as below, for which discrete financial information is available and whose operating results are utilized by NTT Group’s management to make decisions about the allocation of resources and to assess business performance. Services included in each segment are as follows:

Mobile communications business segment

Mobile voice-related services, IP/packet communications services, sales of telecommunications terminal equipment, and other services

Regional communications business segment

Fixed voice-related services, IP/packet communications services, sales of telecommunications terminal equipment, system integration services, and other services

Long distance and international communications business segment

Fixed voice-related services, IP/packet communications services, system integration services, and other services

Data communications business segment

System integration services

Other business segment

Principally building maintenance, real estate rentals, systems development, leasing, and other services related to research and development

Operating revenues

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Mobile communications business		
Transactions with external customers	4,699,842	4,774,711
Inter-segment transactions	62,425	66,138
Subtotal	4,762,267	4,840,849
Regional communications business		
Transactions with external customers	2,585,194	2,463,941
Inter-segment transactions	646,386	688,391
Subtotal	3,231,580	3,152,332
Long distance and international communications business		
Transactions with external customers	2,139,723	2,162,563
Inter-segment transactions	102,484	116,128
Subtotal	2,242,207	2,278,691
Data communications business		
Transactions with external customers	1,927,244	2,037,782
Inter-segment transactions	117,966	125,843
Subtotal	2,045,210	2,163,625
Other business		
Transactions with external customers	430,145	440,845
Inter-segment transactions	784,438	799,425
Subtotal	1,214,583	1,240,270
Elimination of inter-segment transactions	(1,713,699)	(1,795,925)
Total	11,782,148	11,879,842

Segment profit or loss

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Segment profit		
Mobile communications business	986,981	1,013,644
Regional communications business	351,608	360,726
Long distance and international communications business	90,560	100,148
Data communications business	123,218	147,717
Other business	98,686	85,624
Total	1,651,053	1,707,859
Elimination of inter-segment transactions	(9,967)	(14,026)
Operating profit	1,641,086	1,693,833

Segment profit is calculated by subtracting operating expenses from operating revenues.

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Share of profit (loss) of entities accounted for using the equity method		
Mobile communications business	(10,937)	(12,013)
Regional communications business	264	167
Long distance and international communications business	(420)	(873)
Data communications business	909	175
Other business	15,150	2,469
Total	4,966	(10,075)

Segment assets

(Millions of yen)

	As of March 31, 2018	As of March 31, 2019
Segment assets		
Mobile communications business	7,654,418	7,340,543
Regional communications business	6,831,933	6,884,134
Long distance and international communications business	2,775,204	2,994,007
Data communications business	2,346,791	2,548,369
Other business	10,951,797	11,546,523
Total	30,560,143	31,313,576
Elimination of inter-segment transactions	(9,018,699)	(9,018,430)
Total	21,541,444	22,295,146

1. "Other business" includes stocks of subsidiaries held by NTT.

2. "Elimination of inter-segment transactions" includes the offset between the investment account and the capital account.

Goodwill recognized in an acquisition is allocated to assets of the segments to which the acquired business belongs. Description of goodwill by segment is presented in "Note 15. Goodwill and Intangible Assets (3) Impairment Tests for Goodwill and Intangible Assets with Indefinite Useful Lives."

Other significant accounts

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Depreciation and Amortization		
Mobile communications business	486,550	470,922
Regional communications business	454,977	447,984
Long distance and international communications business	167,837	178,424
Data communications business	153,886	153,577
Other business	84,557	90,943
Total	1,347,807	1,341,850
Elimination of inter-segment transactions	(876)	(8,203)
Total	1,346,931	1,333,647

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Capital investment		
Mobile communications business	577,037	593,749
Regional communications business	549,649	540,997
Long distance and international communications business	234,977	244,326
Data communications business	194,814	179,214
Other business	141,465	138,672
Total	1,697,942	1,696,958

Capital investment represent the increase in property, plant and equipment and intangible assets for each segment.

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Impairment losses - Goodwill		
Mobile communications business	8,811	23,758
Long distance and international communications business	25,308	15,685
Total	34,119	39,443

Impairment losses for goodwill are presented in “Note 15. Goodwill and Intangible Assets (3) Impairment Tests for Goodwill and Intangible Assets with Indefinite Useful Lives.”

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Impairment losses - Metal cables		
Regional communications business	124,800	66,003

Impairment losses for a portion of metal cables for the telecommunications business are presented in “Note 14. Property, Plant and Equipment (3) Impairment Losses.”

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Impairment losses - Other		
Mobile communications business	3,021	9,063
Regional communications business	2,448	3,698
Long distance and international communications business	11,752	3,968
Data communications business	1,727	683
Other business	2	3,540
Total	18,950	20,952

Inter-segment transactions are conducted as an independent customer based on arm’s length prices.

Geographic information

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Operating revenues		
Japan	9,599,674	9,632,684
Overseas	2,182,474	2,247,158
Total	11,782,148	11,879,842

1. Operating revenues are classified into “Japan” or “Overseas” according to the locations of customers to whom the goods and services are provided. Overseas non-current assets are not disclosed as they are not material.
2. For the fiscal years ended March 31, 2018 and March 31, 2019, there was no operating revenue from transactions with a single external customer that accounted for 10% or more of NTT Group’s total operating revenues.

7. Business Combinations and Acquisitions of Non-controlling Interests

Fiscal year ended March 31, 2018 (April 1, 2017 to March 31, 2018)

There was no significant business combination.

Fiscal year ended March 31, 2019 (April 1, 2018 to March 31, 2019)

Description about making NTT Urban Development Corporation a wholly owned subsidiary of NTT-SH Corporation is presented in “Note 26. Equity and Other Components of Equity (7) Equity Transactions with Non-controlling Interests.”

8. Cash and Cash Equivalents

Cash and cash equivalents for the fiscal year ended March 31, 2019 are classified as financial assets measured at amortized cost.

Details of cash and cash equivalents

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Cash and deposits	1,052,707	756,156	903,111
Commercial paper and repurchase agreements	236	194	269
Term deposits, certificates of deposits, and others	22,830	138,653	42,754
Total	1,075,773	895,003	946,134

Cash and deposits are deposited mainly with financial institutions in Japan and are not concentrated significantly on a particular financial institution.

9. Impact on the Consolidated Financial Statements Due to the Last Day of Fiscal Year Fallen on a Non-business Day

The last day of the fiscal year ended March 31, 2018 and fiscal year ended March 31, 2019 fell on a non-business day, resulting in the due date of certain bills, including telecommunication service bills, being set to the first business day of the following month.

Consequently, the impact on the consolidated financial statements is as follows.

(Millions of yen)

	As of March 31, 2018	As of March 31, 2019
(Consolidated Statement of Financial Position)		
Cash and cash equivalents	(231,929)	(223,672)
Trade and other receivables	231,929	223,672

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
(Condensed Consolidated Statement of Cash Flows)		
Decrease (increase) in trade and other receivables	(231,929)	8,257
Cash and cash equivalents as of April 1	–	(231,929)
Cash and cash equivalents as of March 31	(231,929)	(223,672)

10. Assets Held for Sale

Sumitomo Mitsui Card Company, Limited

Overview

As of the date of transition to IFRS, March 31, 2018, and March 31, 2019, NTT Group held 34% of the outstanding common shares of Sumitomo Mitsui Card Company, Limited (“Sumitomo Mitsui Card”). Sumitomo Mitsui Card is a credit card operator in Japan and a privately held company.

In July 2005, NTT DOCOMO, a subsidiary of NTT, entered into an agreement with Sumitomo Mitsui Card, Sumitomo Mitsui Financial Group, Inc. (SMFG), and Sumitomo Mitsui Banking Corporation to jointly promote credit transaction services which use mobile phones compatible with the “Osafu-Keitai” (mobile wallet) service. The investment NTT DOCOMO made in Sumitomo Mitsui Card in accordance with this agreement had been accounted for using the equity method.

In September 2018, NTT DOCOMO concluded an agreement for new business cooperation with Sumitomo Mitsui Card and SMFG. NTT DOCOMO group and SMFG will jointly develop a business to facilitate cashless payments by leveraging each of their customer bases and know-how and further expanding their “iD” electronic money service, while looking into the possibility of a new collaboration in areas such as FinTech. As a result of this arrangement, NTT DOCOMO agreed to sell all Sumitomo Mitsui Card shares to SMFG in April 2019.

On April 1, 2019, NTT DOCOMO sold all of its Sumitomo Mitsui Card shares to SMFG.

Impact on accounting treatment and on the consolidated financial statements

In accordance with IFRS 5 “Non-current Assets Held for Sale and Discontinued Operations,” NTT Group reclassified its investment in Sumitomo Mitsui Card from “Investment accounted for using the equity method” to “Assets held for sale”. As a result, the subsequent application of the equity method was discontinued and the amount of the asset was measured at its carrying amount at that time. Assets held for sale comprise ¥234,160 million of investments in associates attributable to Mobile communications business, which had been accounted for using the equity method.

Accumulated other comprehensive income (net of taxes) related to “Assets held for sale” amounted to ¥30,620 million (credit side) and was included in “Other components of equity” in the condensed consolidated statement of financial position as of March 31, 2019. This total amount represents the changes in the fair value of financial assets measured at fair value through other comprehensive income. It will not be recognized in profit or loss, but will be directly reclassified to retained earnings when the asset is sold.

Due to the decision to recover this investment by sale, deferred tax liabilities arising from the temporary differences on this investment increased by ¥42,530 million and were offset against deferred tax assets on the consolidated statement of financial position. As a result, “Income taxes” on the consolidated statement of profit or loss increased by ¥20,667 million, and “Share of other comprehensive income of entities accounted for using the equity method (items that will not be reclassified to profit or loss)” (credit side) on the consolidated statement of comprehensive income decreased by ¥21,863 million.

11. Trade and Other Receivables

Trade and other receivables for the fiscal year ended March 31, 2019 are classified as financial assets measured at amortized cost, except for lease receivables.

Details of trade and other receivables

		(Millions of yen)	
	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Gross amounts			
Notes and accounts receivables - trade (note 1)	2,502,609	2,725,964	2,841,236
Accounts receivable - other	583,073	695,420	857,049
Lease receivables	502,941	556,844	628,255
Installment sales receivables	84,074	97,932	129,337
Allowance for doubtful accounts	(49,120)	(53,933)	—
Loss allowance	—	—	(64,443)
Total	3,623,577	4,022,227	4,391,434

Notes:

1. Short - term telecommunications terminal equipment installment sales receivables are included.

Trade and other receivables that are expected to be collected later than 12 months from the end of each reporting period (the date of transition to IFRS, March 31, 2018, or March 31, 2019) were ¥65,388 million, ¥77,802 million, and ¥100,060 million, respectively. The details of lease receivables that are expected to be collected later than 12 months from the end of the reporting period are not included in these amounts and are described in “Note 20. Leases.”

Trade and other receivables on the consolidated statement of financial position represents the amount after deducting allowance for doubtful accounts and loss allowance. At the date of transition to IFRS and as of March 31, 2018, the amount of trade and other receivables was calculated by deducting allowance for doubtful accounts under the prior accounting policy (U.S. GAAP) applying the exemptions from IFRS 7 and IFRS 9 as defined in IFRS 1. As of March 31, 2019, the amount was calculated by deducting loss allowance in accordance with IFRS 7 and IFRS 9.

12. Other Financial Assets

(1) Date of Transition to IFRS and Fiscal Year Ended March 31, 2018

Information on other financial assets as at the date of transition to IFRS and as of March 31, 2018 are prepared in accordance with the prior accounting standard (U.S. GAAP) pursuant to the exemption from IFRS 9 as defined in IFRS 1.

Equity securities and debt securities

“Other financial assets” includes equity securities and debt securities classified as available-for-sale securities, and debt securities classified as held-to-maturity securities.

Cost, unrealized gains and losses, and fair value

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)			
	Cost	Unrealized gains	Unrealized losses	Fair value
Available-for-sale securities				
Equity securities	140,672	194,501	778	334,395
Debt securities	96,231	1,474	368	97,337
Held-to-maturity securities				
Debt securities	4,479	82	7	4,554
Total	241,382	196,057	1,153	436,286

(Millions of yen)

	As of March 31, 2018			
	Cost	Unrealized gains	Unrealized losses	Fair value
Available-for-sale securities				
Equity securities	134,270	215,822	892	349,200
Debt securities	116,562	1,055	709	116,908
Held-to-maturity securities				
Debt securities	4,508	80	6	4,582
Total	255,340	216,957	1,607	470,690

Sales amounts of marketable available-for-sale securities, and realized gains and losses

(Millions of yen)

	Fiscal year ended March 31, 2018
Sales amount	16,517
Realized gains	4,873
Realized losses	105

“Realized gains” and “Realized losses” are recognized in “Finance income” or “Finance costs” in the consolidated statement of profit or loss.

Equity securities measured at cost

NTT Group has equity securities that are intended to be held for a long term in the ordinary course of business, which are accounted for at cost and included in “Other financial assets.” Since there is no market price available for these securities and it is an excessive burden to estimate the reasonable fair value, NTT Group considers that it is not practicable to disclose the fair value of these equity securities. NTT Group does not estimate the fair value to assess impairment unless there are any events or changes that would have a significant adverse effect on the fair value of these investments.

(Millions of yen)

	Date to transition to IFRS (April 1, 2017)	As of March 31, 2018
Total carrying amount of equity securities measured at cost	62,301	66,779
Of the above, investments whose fair value is not estimated	62,292	66,120

(2) Fiscal Year Ended March 31, 2019Details of other financial assets

(Millions of yen)

	Date of application of IFRS 9 (April 1, 2018)	As of March 31, 2019
Current assets		
Financial assets measured at fair value through profit or loss		
Debt securities	9,248	6,352
Loans receivables	15,615	17,831
Derivative financial assets		
Applied hedge accounting	419	9,160
Not applied hedge accounting	250	577
Financial assets measured at fair value through other comprehensive income		
Equity securities	5,151	2,476
Financial assets measured at amortized cost		
Debt instruments	2,582	3,074
Loans receivables	73,285	61,885
Short-term investments	14,384	13,143
Other	2,447	3,419
Loss allowance	(38)	(164)
Subtotal	123,343	117,753
Non-current assets		
Financial assets measured at fair value through profit or loss		
Debt securities	83,188	90,777
Investments in capital	26,444	34,467
Loans receivables	151,119	139,295
Derivative financial assets		
Applied hedge accounting	7,054	5,775
Not applied hedge accounting	616	2,283
Financial assets measured at fair value through other comprehensive income		
Equity securities	410,597	408,141
Financial assets measured at amortized cost		
Debt securities	26,235	28,226
Loans receivables	94,539	131,784
Long - term telecommunications terminal equipment receivables	236,274	238,395
Leasehold and guarantee deposits	57,548	59,356
Other	9,518	13,882
Loss allowance	(13,450)	(13,879)
Subtotal	1,089,682	1,138,502
Total	1,213,025	1,256,255

Investments in the above equity securities are classified as financial assets measured at fair value through other comprehensive income as NTT Group holds all of them for maintaining and strengthening transactional relationships with the investees.

Major financial assets measured at fair value through other comprehensive income

(Millions of yen)

	Date of application of IFRS 9 (April 1, 2018)	As of March 31, 2019
Recruit Holdings Co., Ltd.	83,302	99,572
Far EasTone Telecommunications Co., Ltd	43,714	40,956
KT Corporation	40,583	38,929
StarHub Ltd	31,957	20,922
FamilyMart UNY Holdings Co., Ltd.	16,243	20,456
UC CARD Co., Ltd.	11,743	15,335
SKY Perfect JSAT Holdings Inc.	14,662	14,110
Nippon Television Holdings, Inc.	15,394	13,556
TOKYO BROADCASTING SYSTEM HOLDINGS, INC.	14,616	13,120
Lawson, Inc.	15,167	12,845
FUJI MEDIA HOLDINGS, INC.	14,239	11,987
Robi Axiata Limited	7,424	10,750
Premier Investment Corporation	4,855	6,073
Other	101,849	92,006
Total	415,748	410,617

Information on financial assets measured at fair value through other comprehensive income that were derecognized mainly due to sales in line with revised business policies

(Millions of yen)

	Fiscal year ended March 31, 2019
Fair value at derecognition	23,393
Accumulated gains (losses) at derecognition	14,034
Dividend received	98

Accumulated gains or losses relating to financial assets measured at fair value through other comprehensive income were transferred from other components of equity to retained earnings at the time of derecognition.

13. Inventories

Details of inventories

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Telecommunications terminal equipment and materials to be sold	155,248	188,187	178,459
Work in progress	84,455	79,934	63,007
Supplies	87,015	86,060	90,168
Total	326,718	354,181	331,634

Amounts of inventories recognized as expenses, write-down of inventories, and reversal of write-down

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Inventories recognized as expenses	1,538,618	1,567,237
Write-down of inventories	7,702	7,093
Reversal of write-down of inventories	(768)	(259)

14. Property, Plant and Equipment

(1) Changes

Changes in carrying amounts, costs, accumulated depreciation, and accumulated impairment losses of property, plant and equipment

Carrying amounts of property, plant and equipment

(Millions of yen)

	Telecom- munications equipment	Telecom- munications service lines	Buildings and structures	Machinery, vessels and tools	Land	Construction in progress	Total
Date of transition to IFRS (April 1, 2017)	2,505,225	2,743,706	1,752,735	667,081	636,610	414,398	8,719,755
Acquisition	14,494	214	6,075	86,619	2,583	1,157,374	1,267,359
Acquisition in business combination	0	0	237	277	0	1	515
Sale or disposal	(63,418)	(14,614)	(10,962)	(11,877)	(2,024)	(5,045)	(107,940)
Transfer between accounts	555,752	269,660	150,469	142,942	17,536	(1,128,712)	7,647
Depreciation	(452,705)	(180,863)	(140,792)	(147,019)	0	0	(921,379)
Impairment	(29)	(124,801)	(2,746)	(785)	0	(14)	(128,375)
Foreign currency translation adjustments	(158)	(392)	132	203	272	(163)	(106)
Other	(22,129)	1,483	6,614	6,210	(122)	(17,358)	(25,302)
As of March 31, 2018	2,537,032	2,694,393	1,761,762	743,651	654,855	420,481	8,812,174
Acquisition	26,347	582	7,653	140,137	7,131	1,110,960	1,292,810
Acquisition in business combination	0	0	1,122	2,503	23	0	3,648
Sale or disposal	(61,682)	(14,251)	(22,907)	(9,618)	(5,595)	(6,180)	(120,233)
Transfer between accounts	538,083	253,369	143,321	147,112	(8,580)	(1,074,268)	(963)
Depreciation	(432,271)	(186,457)	(135,147)	(151,273)	0	0	(905,148)
Impairment	(2,322)	(66,934)	(2,654)	(2,864)	(1,107)	(7)	(75,888)
Foreign currency translation adjustments	144	306	(2,198)	(2,652)	(560)	(384)	(5,344)
Other	(4,023)	3,029	17,184	(35,309)	51,616	(20,606)	11,891
As of March 31, 2019	2,601,308	2,684,037	1,768,136	831,687	697,783	429,996	9,012,947

Note: Depreciation and impairment are included in “Depreciation and amortization” and “Impairment losses” are included in the consolidated statement of profit or loss, respectively.

Cost

(Millions of yen)

	Telecom- munications equipment	Telecom- munications service lines	Buildings and structures	Machinery, vessels and tools	Land	Construction in progress	Total
Date of transition to IFRS (April 1, 2017)	11,136,502	15,991,663	5,396,368	2,215,418	639,511	414,398	35,793,860
As of March 31, 2018	11,007,130	16,183,748	5,506,426	2,309,269	657,746	420,481	36,084,800
As of March 31, 2019	10,929,456	16,353,389	5,543,499	2,415,775	699,178	429,996	36,371,293

Accumulated depreciation and impairment losses

(Millions of yen)

	Telecom- munications terminal equipment	Telecom- munications service lines	Buildings and structures	Machinery, vessels and tools	Land	Construction in progress	Total
Date of transition to IFRS (April 1, 2017)	8,631,277	13,247,957	3,643,633	1,548,337	2,901	0	27,074,105
As of March 31, 2018	8,470,098	13,489,355	3,744,664	1,565,618	2,891	0	27,272,626
As of March 31, 2019	8,328,148	13,669,352	3,775,363	1,584,088	1,395	0	27,358,346

(2) Leased AssetsCarrying amounts of leased assets classified as finance leases included in property, plant and equipment

(Millions of yen)

	Buildings and structures	Machinery, vehicles and tools	Total
Date of transition to IFRS (April 1, 2017)	7,111	28,934	36,045
As of March 31, 2018	3,988	25,746	29,734
As of March 31, 2019	11,996	29,310	41,306

(3) Impairment LossesImpairment losses for a portion of metal cables for the telecommunications business

In December 2017, NTT Group determined that a portion of the metal cables used for its telecommunications business were idle assets with no prospect of future use.

The usage rate of metal cables has been decreasing continuously. In addition to the downward trend in the number of subscribers to the fixed-line services that use these cables, NTT Group and other related parties such as service providers have recognized that shrinkage of such services is unavoidable going forward.

Based on the changes in the business environment described above, NTT Group determined that a certain unused portion of the metal cables were idle assets with no prospect of future use and thus reduced the carrying amount to the recoverable amount. Consequently, in the fiscal year ended March 31, 2018, NTT Group recorded ¥124,800 million of impairment losses for telecommunications service lines in the Regional communications business segment. The recoverable amount of the metal cables is ¥107,535 million based on the fair value less costs of disposal using the market approach. The assumptions (inputs) used to measure fair value defined in “Note 3. Significant Accounting Policies (5) Fair Value” are classified as Level 3. Under the market approach, the recoverable amount is estimated taking into consideration the market price of the main material and the cost necessary to make it available for sale.

In the fiscal year ended March 31, 2019, NTT Group determined some metal cables that had been previously expected to be used in the future were idle assets with no prospect of future use, in addition to the assets recognized as idle assets in the fiscal year ended March 31, 2018.

NTT Group started specific efforts toward some metal cable contractors to use optical cables and decided to simplify their contract procedures (abolition of the temporary mandatory use of metal cables due to change of operators).

In light of these changes in the business environment, NTT Group additionally regarded the metal cable lines left with the wiring to the customers' homes even after the termination of the contract as the unused portions. The Group determined that such metal cable lines were idle assets with no prospect of future use and thus reduced the carrying amount to the recoverable amount. Consequently, impairment losses of ¥66,003 million were recorded for telecommunications service lines in the Regional communications business segment in the fiscal year ended March 31, 2019. The recoverable amount of the metal cables is ¥47,816 million based on the fair value less costs of disposal using the market approach. The assumptions (inputs) used to measure fair value are classified as Level 3. Under the market approach, the recoverable amount is estimated taking into consideration the market price of the main material and the cost necessary to make it available for sale.

(4) Assets Pledged as Collateral

The amounts of property, plant and equipment that are pledged as collateral for corporate bonds and loans are stated in "Note 19. Short-Term Borrowings and Long-Term Borrowings."

(5) Assets with Restricted Ownership

Under finance leases liabilities, the Group bears obligations and lessors reserve ownership of the leased assets. The details of finance leases are presented in "Note 20. Leases."

(6) Borrowing Costs

Of the borrowing costs (interest paid) related to the construction of property, plant and equipment, those that are incurred during the construction periods are included in the cost of the asset. Borrowing costs on the development of internal-use software are also included in the cost of the software. Borrowing costs included in the costs are depreciated over the estimated useful life of the relevant asset. For the fiscal year ended March 31, 2018 and fiscal year ended March 31, 2019, the amounts of borrowing costs incurred were ¥36,147 million and ¥26,725 million, respectively, of which ¥1,536 million and ¥1,299 million were included in the costs of the assets. Interest paid in the fiscal years ended March 31, 2018 and 2019 were ¥45,461 million and ¥39,416 million, respectively.

The capitalization rate applied in capitalizing the borrowing costs was 0.73% to 0.84%.

15. Goodwill and Intangible Assets

(1) Changes

Changes in carrying amounts, costs, accumulated amortization, and accumulated impairment losses

Carrying amount

(Millions of yen)

	Goodwill	Intangible assets					Total
		Software	Rights to use facilities	Trade-marks, trade names	Rights to acquire buildings	Other	
Date of transition to IFRS (April 1, 2017)	881,292	1,208,294	48,058	50,134	16,792	286,320	1,609,598
Acquisition	—	2,787	1,766	—	—	7,409	11,962
Increase due to internal development	—	390,321	—	—	—	—	390,321
Acquisition in business combination	5,185	176	—	—	—	2,475	2,651
Sale or disposal	—	(5,631)	—	—	—	(512)	(6,143)
Amortization	—	(372,868)	(2,175)	(660)	—	(36,168)	(411,871)
Impairment	(34,119)	(4,623)	(10,153)	—	—	(470)	(15,246)
Foreign currency translation adjustments	(9,890)	1,004	1,128	(249)	—	(4,195)	(2,312)
Other	(1,185)	4,648	105	—	—	5,735	10,488
As of March 31, 2018	841,283	1,224,108	38,729	49,225	16,792	260,594	1,589,448
Acquisition	—	7,590	1,860	—	—	3,656	13,106
Increase due to internal development	—	442,933	—	—	—	—	442,933
Acquisition in business combination	85,693	1,947	—	—	—	35,429	37,376
Sale or disposal	(14,183)	(8,704)	—	(8,066)	—	(530)	(17,300)
Amortization	—	(378,454)	(1,699)	(660)	—	(34,316)	(415,129)
Impairment	(39,443)	(5,304)	—	—	—	(3,065)	(8,369)
Foreign currency translation adjustments	10,424	(1,024)	(70)	210	—	2,314	1,430
Other	2,757	(2,562)	27	(2)	(15,713)	2,517	(15,733)
As of March 31, 2019	886,531	1,280,530	38,847	40,707	1,079	266,599	1,627,762

Note: Amortization and impairment are included in “Depreciation and amortization” and “Impairment losses” in the consolidated statement of profit or loss, respectively.

Cost

(Millions of yen)

	Goodwill	Intangible assets					Total
		Software	Rights to use facilities	Trade-marks, trade names	Rights to acquire buildings	Other	
Date of transition to IFRS (April 1, 2017)	968,303	6,343,493	351,751	56,201	16,792	547,520	7,315,757
As of March 31, 2018	962,413	6,504,263	354,427	55,952	16,792	558,465	7,489,899
As of March 31, 2019	998,850	6,718,486	353,982	41,230	1,079	589,837	7,704,614

Accumulated depreciation and impairment losses

(Millions of yen)

	Goodwill	Intangible assets					Total
		Software	Rights to use facilities	Trade-marks, trade names	Rights to acquire buildings	Other	
Date of transition to IFRS (April 1, 2017)	87,011	5,135,199	303,693	6,067	—	261,200	5,706,159
As of March 31, 2018	121,130	5,280,155	315,698	6,727	—	297,871	5,900,451
As of March 31, 2019	112,319	5,437,956	315,135	523	—	323,238	6,076,852

*Goodwill, for which is fully impaired is excluded from the accumulated impairment loss

Carrying amounts of internally generated intangible assets related to software

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Software			
Internally generated intangible assets	1,130,163	1,128,847	1,181,327

Intangible assets with indefinite useful lives are not amortized as the limit of the contractual terms of trademarks, trade names, and rights to acquire building have not been determined and the cost to maintain the value of those rights is immaterial.

Carrying amounts of intangible assets with indefinite useful lives

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Trademarks and trade names	48,814	48,565	40,707
Rights to acquire buildings	16,792	16,792	1,079
Other	18,672	20,078	20,143
Total	84,278	85,435	61,929

Trademarks and trade names are intangible assets with indefinite useful lives, which were acquired through business combination.

(2) Assets Pledged as Collateral

The amounts of intangible assets pledged as collateral for corporate bonds and loans are stated in “Note 19. Short-Term Borrowings and Long-Term Borrowings.”

(3) Impairment Tests for Goodwill and Intangible Assets with Indefinite Useful Lives

Carrying amounts of goodwill by segment

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Mobile communications business	79,312	72,448	33,177
Long distance and international communications business	388,155	364,611	423,896
Data communications business	413,671	404,070	429,304
Other business	154	154	154
Total	881,292	841,283	886,531

(Millions of yen)

Cash-generating units containing significant goodwill

Name of cash-generating unit	NTT DATA Services	System Integration-Apac of Dimension Data	Lux e-shelter	Secure24
Carrying amount of goodwill (millions of yen)				
Date of transition to IFRS (April 1, 2017)	334,118	64,301	54,877	—
As of March 31, 2018	318,565	63,356	59,792	—
As of March 31, 2019	335,136	59,985	57,062	51,477
Permanent growth rate (%)				
As of March 31, 2018	3.1	2.6	1.0	—
As of March 31, 2019	3.1	3.1	1.0	2.0
Weighted average cost of capital (%)*				
As of March 31, 2018	8.0	11.4	7.3	—
As of March 31, 2019	8.5	11.7	7.0	10.0
EBITDA multiple (times)				
As of March 31, 2018	13.0 ~ 14.0	—	—	—
As of March 31, 2019	13.0	—	—	14.9
Measurement method of recoverable amount	The fair value less costs of disposal, discounted cash flow method and guideline public company method	The fair value less costs of disposal, discounted cash flow method	The fair value less costs of disposal, discounted cash flow method	The fair value less costs of disposal, discounted cash flow method and comparable company method
Segment	Data communications business	Long distance and international communications business	Long distance and international communications business	Long distance and international communications business

*Weighted average cost of capital is after-tax, same in the following descriptions.

The discounted cash flow method is calculated based on the estimated future cash flows (5 – 11 years) approved by management, discounted at the weighted average cost of capital. The guideline public company method is calculated by multiplying it by the ratio to the corporate value of other companies in the same industry listed on EBITDA based on current business performance. The

assumptions (inputs) used to measure fair value defined in “Note 3. Significant Accounting Policies (5) Fair Value” are classified as Level 3.

The recoverable amounts of cash-generating units including these goodwill were exceeded the carrying amounts. In the fiscal year ended March 31, 2019, if the discount rates of NTT DATA Services and Secure 24 increase by 0.5% and 0.8%, respectively, there would be a possibility of an impairment loss. The headroom of those cash-generating unit were 24.3 billion yen and 4.3 billion yen, respectively.

Impairment of goodwill

In the fiscal year ended March 31, 2018, an impairment test was separately implemented for RagingWire and NTT America which are cash-generating units belonging to the Long distance and international communications business. As a result, impairment losses were recognized for the fiscal year ended March 31, 2018. This is due to the decreased recoverable amount of each cash-generating unit as a result of reassessment of mid-term business forecast based on the recent market environment and other factors relating to cloud services and data network services. All impairment losses are allocated to goodwill.

The recoverable amounts of the cash-generating units are the fair value less costs of disposal, which are measured mainly by the discounted cash flow method and the guideline public company method using unobservable inputs. The classification of assumptions (inputs) used to measure fair value defined in “Note 3. Significant Accounting Policies (5) Fair Value” is classified as level 3.

Recorded amounts of impairment losses, recoverable amounts, and main assumptions used to estimate the recoverable amounts

Name of cash-generating unit	RagingWire	NTT America
Impairment losses (millions of yen)	21,348	3,960
Recoverable amount (millions of yen)	105,789	19,259
Permanent growth rate (%)	2.0	2.0
Weighted average cost of capital (%)	7.5	8.0
EBITDA multiple (times)	15.8	5.6

In the fiscal year ended March 31, 2019, an impairment test was implemented for NTT Security, which is a cash-generating unit belonging to the Long distance and international communications business. As a result, impairment losses were recognized. This is due to the decreased recoverable amount of cash-generating unit as a result of reassessment of mid-term business forecast based on the recent market environment and other factors relating to managed security services and professional services. All impairment losses are allocated to goodwill.

The recoverable amounts of the cash-generating units are the fair value less costs of disposal, which are measured by the discounted cash flow method using unobservable inputs. The assumptions (inputs) used to measure fair value defined in “Note 3. Significant Accounting Policies (5) Fair Value” are classified as level 3.

Recorded amounts of impairment losses, recoverable amounts, and main assumptions used to estimate the recoverable amounts

Name of cash-generating unit	NTT Security
Impairment losses (millions of yen)	15,685
Recoverable amount (millions of yen)	9,983
Permanent growth rate (%)	1.0
Weighted average cost of capital (%)	13.2

We recognized impairment losses of 23,758 millions of yen on goodwill allocated to certain cash-generating units in the mobile communications business segment. That businesses that operates platforms related to the distribution and billing of mobile content overseas, and we estimate the recoverable amount to be no value (Calculated at fair value less costs of disposal).

16. Investment Property

(1) Changes

Changes in carrying amounts, costs, accumulated depreciation, and accumulated impairment losses of investment property

Carrying amount

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Balance at the beginning of the year	992,317	1,002,301
Acquisition	47,121	43,812
Acquisition in business combination	0	0
Sale or disposal	(2,892)	(3,032)
Transfer between accounts	(1,223)	9,342
Depreciation	(19,713)	(18,619)
Impairment	(174)	(1,054)
Foreign currency translation adjustments	895	10
Other	(14,030)	(65,754)
Balance at the end of the year	1,002,301	967,006

(Note) Depreciation and impairment are included in “Depreciation and amortization” and “Impairment losses” are included in the consolidated statement of profit or loss, respectively.

Costs, accumulated depreciation, and accumulated impairment losses

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Cost	1,409,405	1,438,639	1,409,101
Accumulated depreciation and impairment losses	417,088	436,338	442,095

Investment property is grouped based on the smallest identifiable group of assets that generates largely independent cash inflows.

(2) Impairment Losses

In the fiscal years ended March 31, 2018 and March 31, 2019, there were no significant impairment losses recorded relating to investment property.

(3) Fair Value

Fair value of investment property

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Fair value	2,038,355	2,125,900	2,175,058

Fair value of investment property is mainly an appraisal value by an independent real estate appraisal expert, and is based on an evaluation by the discount cash flow method or observable market prices of similar assets.

The assumptions (inputs) used to measure fair value of investment property defined in “Note 3. Significant Accounting Policies (5) Fair Value” are classified as Level 3.

(4) Revenues and Expenses from Investment Property

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Rental income	104,284	113,969
Rental expenses	64,290	71,135
Profit	39,994	42,834
Gains (losses) on sale of investment property	2,731	3,386

Rentals from investment property are include in “Operating revenues” in the consolidated statement of profit or loss.

Rental expenses are expenses incurred to generate rentals, such as depreciation, repair expenses, insurance expenses, taxes and dues, and included in “Expenses for purchase of goods and services and other expenses,” “Depreciation and amortization,” and “Taxes and dues” in the consolidated statement of profit or loss.

17. Investments Accounted for Using the Equity Method

Information on sum of investments in non-significant associates and joint ventures

Information on sum of non-significant investments accounted for using the equity method (total share of NTT Group)

(1) Details of carrying amounts of investments accounted for using the equity method

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Interests in associates	481,632	491,131	248,433
Interests in joint ventures	47,349	48,211	49,828
Total	528,981	539,342	298,261

(2) NTT Group's share of comprehensive income of associates and joint ventures accounted for using the equity method (net of taxes)

(i) Associates

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Profit(losses)	(775)	(15,739)
Other comprehensive income	40,762	(16,565)
Total comprehensive income	39,987	(32,304)

(ii) Joint ventures

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Profit(losses)	5,741	5,664
Other comprehensive income	64	(97)
Total comprehensive income	5,805	5,567

Tata Teleservices Limited

In accordance with a binding arbitration award from the London Court of International Arbitration, NTT DOCOMO received payment of an arbitration award from Tata Sons Limited ("Tata Sons") on October 31, 2017.

NTT group made an investment in Tata Teleservices Limited ("TTSL"), a telecommunications service operator in India and concluded a shareholders agreement among the three parties of NTT DOCOMO, TTSL and Tata Sons in March 2009. The investment had been accounted for applying the equity method.

On January 3, 2015, pursuant to the shareholders agreement, NTT DOCOMO filed for an arbitration to the London Court of International Arbitration as to Tata Son's breach regarding execution of an option for sale of stake in TTSL. The London Court of International Arbitration granted an award in NTT DOCOMO's favor on June 23, 2016.

As a result of this transaction, NTT group recorded the award amount of ¥147,646 million as "income from arbitration award" on its consolidated statement of profit or loss for the fiscal year ended March 31, 2017. Concurrent with the receipt of the above award amount, all shares in TTSL held by NTT DOCOMO were transferred to Tata Sons and companies designated by Tata Sons. Upon the transfer to NTT DOCOMO shares in TTSL, NTT group discontinued the application of the equity method to the investment in TTSL effective October 31, 2017. As a result, NTT Group recorded ¥29,841 million of loss on transfer of investment in an affiliate, equal to the reclassification adjustments of foreign currency translation adjustments, in "Finance costs" on its consolidated statement of profit or loss for the fiscal year ended March 31, 2017.

18. Income Taxes

(1) Deferred Tax Assets and Deferred Tax Liabilities

Details and changes of deferred tax assets and deferred tax liabilities by major factor

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Deferred tax assets			
Defined benefit liabilities	585,766	578,291	582,660
Accrued enterprise tax	14,077	15,830	15,909
Property, plant and equipment and intangible assets	412,807	405,433	386,709
Accrued payroll	108,774	111,538	111,141
Unused tax losses	39,945	44,177	60,744
Provision for point programs	9,809	10,146	7,458
Investments accounted for using the equity method	90,220	*7,182	18,882
Equity instruments	23,329	23,737	20,203
Accounts receivable - trade	34,724	39,353	43,668
Real estate tax payable	41,564	40,355	40,560
Contract liabilities	101,406	104,526	106,525
Loss allowance	10,164	9,610	11,166
Other	114,154	130,954	126,220
Total	1,586,739	1,521,132	1,531,845
Offset to deferred tax liabilities	(343,456)	(347,186)	(407,378)
Net deferred tax assets	1,243,283	1,173,946	1,124,467

*Deferred tax assets relating to investments accounted for using the equity method decreased for the fiscal year ended March 31, 2018 because NTT DOCOMO transferred TTSL shares.

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Deferred tax liabilities			
Equity instruments	52,193	59,418	60,781
Property, plant and equipment	117,501	121,328	126,145
Intangible assets	73,705	49,457	52,750
Investments accounted for using the equity method	11,749	9,235	*46,922
Plan assets related to the defined benefit plan	39,633	38,735	34,357
Contract cost	114,217	104,786	107,618
Other	33,496	38,322	39,994
Total	442,494	421,281	468,567
Offset to deferred tax assets	(343,456)	(347,186)	(407,378)
Net deferred tax liabilities	99,038	74,095	61,189

*Description of impact of assets held for sale is presented in "Note 10. Assets Held for Sale".

Changes of net deferred tax assets

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Balance at the beginning of the year	1,144,245	1,099,851
Cumulative effect of adopting IFRS 9 “Financial Instruments”	–	(6,875)
Amount recognized in profit or loss	(3,456)	4,831
Amount recognized as other comprehensive income		
Cash flow hedges	(935)	(442)
Financial assets measured at fair value through other comprehensive income	(7,142)	1,445
Remeasurements of the defined benefit plans	(15,577)	5,027
Share of other comprehensive income of entities accounted for using the equity method	(13,007)	(32,473)
Total	1,104,128	1,071,364
Others*	(4,277)	(8,086)
Balance at the end of the year	1,099,851	1,063,278

*The main effects were foreign currency translation differences and business combinations.

Deductible temporary differences and unused tax losses for which no deferred tax assets are recognized

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Deductible temporary differences	174,808 (26,699)	144,600 (15,728)	156,384 (15,928)
Unused tax losses			
Expiration date	93,003	86,853	74,258
Within 5 years	(13,840)	(13,452)	(13,652)
Expiration date	897,034	792,611	800,777
Over 6 years and within 20 years	(320,562)	(192,940)	(185,998)
Indefinite periods	83,313 (21,182)	64,298 (16,292)	65,756 (17,386)
Total unused tax losses	1,073,350 (355,584)	943,762 (222,684)	940,791 (217,036)
Total deductible temporary differences and unused tax losses	1,248,158 (382,283)	1,088,362 (238,412)	1,097,175 (232,964)

The amounts of deductible temporary differences and unused tax losses are based on temporary differences, and those presented in parentheses are on a tax basis.

For entities subject to consolidated taxation system, recoverability of national corporate tax is assessed based on the estimate of future taxable income of the consolidated taxpaying group, while recoverability of local taxes is assessed based on the future taxable income of each entity. When local taxes are deemed as not recoverable, the amounts of future deductible temporary differences and unused tax losses on a temporary difference basis are multiplied by local tax rates and presented as the amount on a tax basis.

Other information related to NTT America, Inc.

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Unused tax losses *1	830,193	780,032	810,804
Unused tax losses for which no deferred tax assets are recognized *2,3,4	770,471 (292,676)	673,606 (173,073)	677,711 (166,446)
Net deferred tax assets	13,914	21,930	20,349
Future taxable income needed to realize the net deferred tax assets	*5 36,495	*6 86,748	*7 82,854

*1 Unused tax losses may be offset against taxable income generated from ordinary operating activities until the end of the fiscal year ending March 31, 2036.

*2 Large amounts of unused tax losses for which no deferred tax assets are recognized were due to, among other factors, insufficient taxable income level compared with the unused tax losses and the uncertainties about the future plans for generating taxable income, despite the three years of cumulative income recorded in the fiscal years ended March 31, 2018 and 2019. The recorded amount of the unused tax losses for which no deferred tax assets are recognized is reassessed at the end of each fiscal year based on the forecast for taxable income and the recoverability of deferred tax assets. The amount of the carryforward of unused tax losses for which no deferred tax assets are recognized may decrease in the future.

*3 The decrease in unused tax losses for which no deferred tax assets are recognized (in the amount on a tax basis) in the fiscal year ended March 31, 2018, is mainly due to ¥91,772 million of federal corporate income tax rate cut resulting from the enactment of the US Tax Cuts and Jobs Act and ¥19,085 million of a change in the estimate of recoverability of deferred tax assets for NTT America, Inc. The decrease in unused tax losses for which no deferred tax assets are recognized (in the amount on a tax basis) in the fiscal year ended March 31, 2019, is mainly due to ¥6,385 million of a change in the estimate of recoverability of deferred tax assets for NTT America, Inc.

*4 The amounts of unused tax losses for which no deferred tax assets are recognized are based on temporary differences, and those presented in parentheses are on a tax basis.

*5 Calculated on the basis of US\$1 = ¥112.19 (as of March 31, 2017)

*6 Calculated on the basis of US\$1 = ¥106.24 (as of March 31, 2018)

*7 Calculated on the basis of US\$1 = ¥110.99 (as of March 31, 2019)

Total temporary differences relating to investments in subsidiaries and associates for which no deferred tax liabilities are recognized

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Taxable temporary differences	533,533 (167,673)	461,614 (145,071)	397,703 (125,117)

The amounts of taxable temporary differences are based on temporary differences, and those presented in parentheses are on a tax basis.

(2) Details of Income Taxes

Details of total income taxes

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Income taxes recognized in profit or loss		
Current tax expenses	530,324	538,005
Deferred tax expenses		
Origination and reversal of temporary differences	24,207	(8,783)
Recognition of probable that deductible temporary differences not recognized in prior years	(2,426)	(9,272)
Recognition of unused tax losses not recognized in prior years	(26,044)	(7,443)
Attributable to NTT America, Inc. included in the above (Note 1)	(19,085)	(6,385)
Effect of changes in tax rates	7,719	(Note 3)20,667
Total deferred tax expenses	3,456	(4,831)
Total income taxes recognized in profit or loss	533,780	533,174
Total income taxes recognized in other comprehensive income (Note 2)	36,661	30,255
Total income taxes recognized in additional paid-in capital (Note 2)	3,371	9,548
Total income taxes	573,812	572,977

Notes:

1. This impact was due to a reassessment of the recoverability of deferred tax assets and increasing the deferred tax assets for the fiscal years ended March 31, 2018 and 2019.
2. The details of total income taxes recognized in other comprehensive income and total income taxes recognized in additional paid-in capital are presented in “Note 26. Equity and Other Components of Equity.”
3. The factor is presented in “Note 10. Assets Held for Sale”.

Almost all the profit before taxes and tax expenses of NTT Group were recorded in Japan. For the fiscal years ended March 31, 2018 and 2019, NTT was subject to national corporate tax of 24.43%, local corporate inhabitant tax of approximately 3.79%, and local deductible corporate enterprise tax of approximately 5.04%. NTT’s domestic subsidiaries were subject to national corporate tax of 24.22%, local corporate inhabitant tax of approximately 3.78%, and local deductible corporate enterprise tax of approximately 5.04%. The statutory effective tax rates were 31.66% and 31.46%, respectively. The rates of corporate inhabitant tax and corporate enterprise tax differ depending on the municipality.

Foreign subsidiaries are subject to local corporate taxes. The Tax Cuts and Jobs Act was enacted in the United States on December 22, 2017, and the federal corporate income tax rate was changed starting January 1, 2018. Although the amounts of deferred tax assets and deferred tax liabilities of NTT Group’s U.S. subsidiaries decreased as a result of the change in tax rate, the impact on the consolidated financial statements is immaterial.

NTT Group accounts for and prepares the consolidated financial statements under the consolidated taxation system. Under the consolidated taxation system, tax expenses for each fiscal year are calculated by aggregating taxable income of the consolidated taxpaying companies, and the recoverability of deferred tax assets related to national corporate tax is assessed on the basis of the aggregated estimate of future taxable income of the consolidated taxpaying companies. As of March 31, 2019, NTT and its 87 wholly owned subsidiaries in Japan, such as NTT East, NTT West, and NTT Communications, are included in the consolidated taxpaying companies.

Details of major items for the difference between the statutory effective tax rate and average actual tax rate

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Statutory effective tax rate	31.66%	31.46%
(Adjustment)		
Effect of reassessment of recoverability of deferred tax assets	(1.14%)	(0.07%)
Effect of tax credits	(0.89%)	(1.02%)
Effect of non-deductible expenses	0.71%	1.05%
Decrease in deferred tax assets at the end of the year due to a change in tax rates	0.25%	-%
Other	0.08%	0.47%
Average actual tax rate	30.67%	31.89%

(3) Income taxes receivable included in other current assets

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Income taxes receivable	10,290	48,450	110,051

19. Short-Term Borrowings and Long-Term Borrowings

Short-term borrowings and Long-term borrowings for the fiscal year ended March 31, 2019 are classified as financial liabilities measured at amortized cost.

(1) Details of Short-Term Borrowings and Long-Term Borrowings

Details of short-term borrowings

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Debt denominated in Japanese yen			
Unsecured loans from banks (weighted average interest rate: %)	40,800 (0.12%)	48,424 (0.13%)	246,360 (0.09%)
Commercial paper (weighted average interest rate: %)	15,000 (△0.00%)	59,000 (△0.01%)	287,000 (△0.00%)
Debt denominated in foreign currencies			
Secured loans from banks (weighted average interest rate: %)	—	—	1,700 (8.57%)
Unsecured loans from banks (weighted average interest rate: %)	340,210 (1.20%)	288,018 (1.15%)	355,907 (2.35%)
Total Short-term borrowings	396,010	395,442	890,967

Short-term borrowings including current portion or balance due within 1 year are shown in Long-term borrowings.

Details of long-term borrowings

(Millions of yen)

	Maturity date	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Debt denominated in Japanese yen				
Corporate bonds				
0.05–1.99% fixed rate corporate bonds	2019–2032	1,266,000	1,001,000	800,000
0.18% floating rate corporate bonds	2022	100	100	100
Secured loans from financial institutions				
1.68% (weighted average) fixed rate loans	2019–2029	37,782	36,779	1,174
0.45% (weighted average) floating rate loans	2026–2032	24,950	22,668	18,171
Unsecured loans from financial institutions				
0.71% (weighted average) fixed rate loans	2019–2048	1,711,482	1,729,319	1,720,678
0.12% (weighted average) floating rate loans	2019–2032	56,960	54,891	46,175
Subtotal		3,097,274	2,844,757	2,586,298
Debt denominated in foreign currencies				
Corporate bonds				
1.90–2.15% fixed rate U.S. dollar corporate bonds	2020-2021	286,085	138,113	144,217
3.13% floating rate U.S. dollar corporate bonds	2020	22,438	74,368	55,495
0.63–1.30% fixed rate Euro corporate bonds	2023-2028	–	40,452	34,466
Unsecured loans from financial institutions				
2.58% (weighted average) fixed rate U.S. dollar loans	2019-2023	12,161	15,077	15,567
3.10% (weighted average) floating rate U.S. dollar loans	2019-2033	350,726	394,762	443,086
1.89% (weighted average) fixed rate U.K. pound loans	2022-2024	7,704	11,163	10,874
0.92% (weighted average) fixed rate Euro loans	2019-2029	14,369	20,429	32,110
0.23% (weighted average) floating rate Euro loans	2019-2027	26,741	21,576	19,567
Other loans	2019-2026	45,665	35,659	30,303
Subtotal		765,889	731,598	785,683
Total principal of Long-term borrowings		3,863,163	3,576,355	3,371,981
less discount or premium on bonds		(285)	(198)	(222)
Total principal of Long-term borrowings (less discount or premium on bonds)		3,862,878	3,576,157	3,371,759
Less current portion		683,233	622,302	506,578
Total Long-term borrowings		3,179,645	2,953,855	2,865,181

Interest rates and maturity dates in the above table are those as of March 31, 2019.

All holders of the corporate bonds totaling ¥495,449 million issued by NTT, referred to in the above table, have preferential rights under the Act on Nippon Telegraph and Telephone Corporation, etc. (the “NTT Act”) to be paid prior to other unsecured indebtedness. Their rights follow certain general preferential rights provided for in the Japanese Civil Code, such as preferential rights of employees to wages.

Some of the corporate bonds as of March 31, 2019 may be redeemed by NTT at par before maturity dates. Corporate bonds are generally repurchased in the market or from the bond holders.

Unused lines of credit under commitment line contracts with banks

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Unused lines of credit	75,129	56,878	50,250

(2) Pledged Assets and Secured Debts

Assets pledged as collateral and secured debts are as follows.

(NTT)

Assets pledged as collateral by NTT

Pursuant to Article 9 of the NTT Act, all the property of NTT is pledged as general collateral against the corporate bonds issued by NTT.

Liabilities corresponding to assets pledged as collateral

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Corporate bonds (including current portion)	720,135	493,050	495,449

(Consolidated subsidiaries)

As a Japanese business practice regarding short-term and long-term bank loans, collateral and guarantees may be pledged for current and future debt in a written transaction contract, if required by the bank. When the payment becomes due or the repayment falls in default, the bank has the right to offset the debt with the bank deposit of the debtor.

Various transaction contracts stipulate that banks may require debtors to pledge additional collateral or they may take out a lien on certain assets.

Assets pledged as collateral by consolidated subsidiaries

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Cash and cash equivalents	7,427	8,579	2,153
Other financial assets	2,456	1,852	1,837
Trade and other receivables	43,796	40,757	51,266
Other current assets	10	9	—
Property, plant and equipment	68,182	60,155	31,865
Intangible assets	36	32	22
Investment property	191,059	183,859	5,507
Other non-current assets	46	42	24
Total	313,012	295,285	92,674

Liabilities corresponding to assets pledged as collateral

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Trade and other payables	20,703	20,171	17,443
Short-term borrowings	—	—	1,700
Corporate bonds	100	100	100
Long-term borrowings*1	72,268	65,704	22,851
Total	93,071	85,975	42,094

*1 Long-term borrowings includes the current portion.

(3) Reconciliation of Changes in Liabilities Relating to Cash Flows from Financing Activities

(Millions of yen)

	Debt	Lease liabilities	Put options granted to non-controlling interests	Derivative financial liabilities (assets) held for hedging liabilities arising from financing activities	Total
Date of transition to IFRS (April 1, 2017)	4,258,888	40,421	81,900	(42,849)	4,338,360
Changes in cash flows from financing and repayments					
Net increase (decrease) in Short-term borrowings	(1,823)	—	—	(547)	(2,370)
Proceeds from increases in Long-term borrowings	444,207	—	—	5,650	449,857
Repayments of Long-term borrowings	(677,995)	—	—	41,142	(636,853)
Repayments of lease liabilities	—	(18,904)	—	—	(18,904)
Purchase of shares in subsidiaries from non-controlling interests	—	—	(21,906)	—	(21,906)
Total changes in liabilities relating to cash flows from financing activities	(235,611)	(18,904)	(21,906)	46,245	(230,176)
Changes as a result of obtaining or losing control of a subsidiary or other business	2,482	(46)	1,991	—	4,427
Effect of changes in foreign currency exchange rates	(43,584)	223	146	—	(43,215)
Accrued finance lease liabilities	—	13,792	—	—	13,792
Changes in fair value	—	—	—	12,463	12,463
Other changes	(10,576)	1,457	(5,585)	—	(14,704)
As of March 31, 2018	3,971,599	36,943	56,546	15,859	4,080,947
Cumulative effect of adoption of IFRS 9 “Financial Instruments”	(245)	—	—	5,478	5,233
As of April 1, 2018	3,971,354	36,943	56,546	21,337	4,086,180
Changes in cash flows from financing and repayments					
Net increase (decrease) in Short-term borrowings	486,124	—	—	—	486,124
Proceeds from increases in Long-term borrowings	434,922	—	—	—	434,922
Repayments of Long-term borrowings	(627,680)	—	—	—	(627,680)
Repayments of lease liabilities	—	(14,876)	—	—	(14,876)
Purchase of shares in subsidiaries from non-controlling interests	—	—	(4,915)	—	(4,915)
Total changes in liabilities relating to cash flows from financing activities	293,366	(14,876)	(4,915)	—	273,575
Changes as a result of obtaining or losing control of a subsidiary or other business	(171)	65	(13,207)	—	(13,313)
Effect of changes in foreign currency exchange rates	32,644	9	(708)	—	31,945
Accrued finance lease obligations	—	25,665	—	—	25,665
Changes in fair value liabilities	—	—	—	(21,197)	(21,197)
Other changes	(34,467)	(1,490)	(3,814)	—	(39,771)
As of March 31, 2019	4,262,726	46,316	33,902	140	4,343,084

The above reconciliation includes only changes in the balances of liabilities arising from financing activities and does not include changes in the balances of capital arising from financing activities.

20. Leases

(1) As Lessee

NTT Group leases certain office space, employees' residential facilities, and other assets under finance leases or operating leases.

(i) Finance leases

Future minimum lease payments under finance leases and the present value

(Millions of yen)

	Minimum lease payments			Present value of minimum lease payments		
	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Within 1 year	15,498	14,303	16,198	14,245	12,658	14,040
Over 1 year and within 5 years	26,618	22,853	26,023	24,140	19,990	21,823
Over 5 years	10,227	12,626	19,512	2,036	4,295	10,453
Total	52,343	49,782	61,733	40,421	36,943	46,316
Less amount equivalent to interest	11,922	12,839	15,417			
Present value	40,421	36,943	46,316			

(ii) Operating leases

Lease payments under operating leases for land, buildings, and equipment for the fiscal years ended March 31, 2018 and 2019 were ¥220,384 million and ¥222,299 million, respectively.

Total future rental payments under non-cancellable operating leases

(Millions of yen)

	As of March 31, 2018	As of March 31, 2019
Within 1 year	49,232	52,826
Over 1 year and within 5 years	103,342	115,214
Over 5 years	40,641	57,784
Total	193,215	225,824

(2) As Lessor

NTT Group leases out certain office space and other assets under finance leases or operating leases.

(i) Finance leases

Future minimum lease payment receivable under finance leases and the present value

(Millions of yen)

	Gross investment in finance leases			Present value of minimum lease payment receivable		
	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Within 1 year	144,041	160,871	173,597	128,818	143,841	157,258
Over 1 year and within 5 years	332,253	351,216	393,079	301,296	319,954	360,878
Over 5 years	78,237	102,646	123,653	67,878	88,970	107,296
Total	554,531	614,733	690,329	497,992	552,765	625,432
Less unearned finance income	51,590	57,889	62,074			
Net investment in finance leases	502,941	556,844	628,255			
Less unguaranteed residual value	4,949	4,079	2,823			
Present value	497,992	552,765	625,432			

(ii) Operating leases

Future minimum lease payment receivable under non-cancellable operating leases

(Millions of yen)

	As of March 31, 2018	As of March 31, 2019
Within 1 year	27,000	28,147
Over 1 year and within 5 years	62,920	62,998
Over 5 years	112,466	120,936
Total	202,386	212,081

21. Trade and Other Payables

Trade and other payables for the fiscal year ended March 31, 2019 are classified as financial liabilities measured at amortized cost.

Details of trade and other payables

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Accounts payable - trade	895,778	860,896	912,142
Accounts payable - other	738,017	784,697	940,283
Accrued expenses	106,891	108,907	149,757
Deposits received	56,858	57,223	90,297
Total	1,797,544	1,811,723	2,092,479

22. Other Financial Liabilities

Details of other financial liabilities

	(Millions of yen)	
	Date of application of IFRS 9 (April 1, 2018)	As of March 31, 2019
Current liabilities		
Financial liabilities measured at fair value through profit or loss		
Derivative financial liabilities		
Applied hedge accounting	84	118
Not applied hedge accounting	4,598	794
Financial liabilities measured at cost		
Other	6,479	7,836
Put options granted to non-controlling interests	26,343	21,517
Lease liabilities	12,658	14,040
Subtotal	50,162	44,305
Non-current liabilities		
Financial liabilities measured at fair value through profit or loss		
Derivative financial liabilities		
Applied hedge accounting	24,639	18,342
Not applied hedge accounting	6,927	374
Financial liabilities measured at cost		
Lease and guarantee deposits received	99,308	106,202
Other	4,630	5,508
Put options granted to non-controlling interests	30,203	12,385
Lease liabilities	24,285	32,276
Subtotal	189,992	175,087
Total	240,154	219,392

23. Employee Benefits

(1) Defined Contribution Pension Plans

Retirement benefit expenses recorded by NTT and part of its subsidiaries related to the defined contribution benefit plans

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Retirement benefit expenses	¥28,217	¥25,424

(2) Defined Benefit Plans

(i) Lump-sum payments on retirement and contract-type corporate pension plans

The employees of NTT Group are generally entitled to lump-sum payments on retirement determined by reference to the employee's basic rate of pay, length of service, and other conditions.

NTT and certain subsidiaries sponsor non-contributory contract-type corporate pension plans, which provide pensions from funds equivalent to 28% of the lump-sum payments on retirement. The employees have an option to receive the benefit in a lump-sum payment.

NTT Group has transferred from the contract-type corporate pension plans to a defined contribution pension plan regarding the future contributions made on or after April 1, 2014. The Group's contract-type corporate pension plan continues to remain for the contributions made until March 31, 2014.

(ii) NTT Kigyou-Nenkin-Kikin (NTT Corporate Defined Benefit Pension Plan ("NTT CDBP")) (former NTT Welfare Pension Plan) and NTT Special Accounting Fund for NTT CDBP (former NTT Special Accounting Fund for NTT Welfare Pension Plan)

a) NTT CDBP (former NTT Welfare Pension Plan)

NTT CDBP is a pension plan to which both NTT Group and its employees make contributions, to add employees' own additional benefits to the basic pension and the welfare pension under the public pension scheme.

b) NTT Special Accounting Fund for NTT CDBP (former NTT Special Accounting Fund for NTT Welfare Pension Plan)

NTT Special Accounting Fund for the NTT CDBP is a transitionally managed pension plan to liquidate the former NTT Mutual Aid Plan pursuant to the Law to Partially Amend the Japanese Welfare Pension Insurance Law and other legislations. This aims to provide pension benefits based on the former Public Corporation Employee Mutual Aid Association Law, following the integration of the former NTT Mutual Aid Plan into the welfare pension insurance in April 1997.

NTT Special Accounting Fund for the NTT CDBP is a public welfare pension scheme and falls under a multiple-employer defined benefit plan.

In accordance with the provisions of the Law and other legislations, NTT Group pays contributions determined by the Japanese government every year based on the pay-as-you-go system to NTT Special Accounting Fund for the NTT CDBP (former NTT Special Accounting Fund for NTT Welfare Pension Plan). Such contributions are made pursuant to the former Public Corporation Employee Mutual Aid Association Law to cover the costs of pension benefits for the period of service in and prior to June 1956 for employees who worked at NTT, Nippon Telegraph and Telephone Public Corporation, and/or its former government organizations (the Ministry of Communications in the area of telecommunications and the Ministry of Telecommunications) and retired in July 1956 or later.

For NTT CDBP and NTT Special Accounting Fund for NTT CDBP in (ii) above, defined benefit obligations are calculated separately from lump-sum payments on retirement and contract-type corporate pension plans in (i) above.

These defined benefit plans are exposed to actuarial risks (investment risk, interest risk, longevity risk, and inflation risk).

Changes in the present value of retirement benefit obligations and fair value of plan assets under the defined benefit plans

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Changes in the present value of defined benefit obligations		
At the beginning of the year	¥3,894,780	¥3,825,802
Current service cost	106,278	105,495
Interest cost	24,880	21,294
Remeasurements	10,316	12,326
Changes in demographic assumptions	(1,539)	(2,131)
Changes in financial assumptions	48,879	50,420
Experience adjustments	(37,024)	(35,963)
Past service cost	(854)	825
Benefit payments (lump-sum payments on retirement and pension)	(204,575)	(203,223)
Other	(5,023)	(464)
At the end of the year	3,825,802	3,762,055
Changes in fair value of plan assets		
At the beginning of the year	2,125,161	2,085,429
Interest income	14,849	12,482
Income related to plan assets excluding interest income	58,014	(5,105)
Employer contributions	19,048	29,132
Employee contributions	3,112	3,158
Benefit payments (pension)	(131,015)	(126,394)
Other	(3,740)	(225)
At the end of the year	2,085,429	1,998,477
Net defined benefit liabilities	¥(1,740,373)	¥(1,763,578)

The measurement date is March 31.

Amounts recorded in the consolidated statement of financial position

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Defined benefit liabilities	¥(1,876,845)	¥(1,860,524)	¥(1,878,013)
Other non-current assets	107,226	120,151	114,435
Net defined benefit liabilities	¥(1,769,619)	¥(1,740,373)	¥(1,763,578)

Details of amounts recorded as retirement benefit expenses

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Retirement benefit expenses		
Current service cost	¥103,166	¥102,337
Past service cost	(854)	825
Interest cost (income)	10,031	8,812
Total	¥112,343	¥111,974

Details of amounts recorded in other comprehensive loss (income)

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Other comprehensive loss (income)		
Remeasurements	¥(47,697)	¥17,431
Other	(252)	1,169
Total	¥(47,949)	¥18,600

Actuarial assumptions for pension

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Assumptions used to determine projected benefit obligations			
Discount rate	0.2%~0.7%	0.2%~0.6%	0.1%~0.5%
Expected rates of salary increase	3.4%	3.4%	3.4%
Average life expectancy of pension recipients at the age of 65 as of the end of the year (year)			
Male	18.7	18.7	18.7
Female	23.8	23.8	23.8

The weighted average duration of defined benefit obligations (the weighted average of the periods until when benefits arise divided by the defined benefit obligation for each period) for the date of transition to IFRS (April 1, 2017), the fiscal years ended March 31, 2018 and 2019 was 16.3 years, 16.3 years and 16.4 years, respectively.

NTT Group expects to contribute ¥17,743 million to NTT CDBP in the fiscal year ending March 31, 2020.

Sensitivity analysis of defined benefit obligations

Effect on defined benefit obligations if one of the actuarial assumptions fluctuates within a reasonably possible extent at the end of the fiscal year, provided that no other assumptions have changed

	Fiscal year ended March 31, 2018		Fiscal year ended March 31, 2019	
	Increase	Decrease	Increase	Decrease
Discount rate (change of 0.5%)	¥(236,493)	¥261,485	¥(232,921)	¥257,597

This analysis does not exhaustively consider the cash flow distribution expected under the plans, but provides an overview of the sensitivity of the assumptions presented above.

Fair value of plan assets under the defined benefit plans at the end of the year

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)		
	Total	With quoted market price in an active market	Without quoted market price in an active market
Cash and cash equivalents	¥48,048	¥47,954	¥94
Debt instruments			
Japanese government bonds and local government bonds	837,780	809,628	28,152
Domestic corporate bonds	161,766	—	161,766
Foreign government bonds	34,373	28,923	5,450
Foreign corporate bonds	751	669	82
Equity securities			
Domestic securities	173,321	172,326	995
Foreign securities	85,191	84,661	530
Beneficiary certificates of securities investment trust			
Domestic debt securities	147,469	1,328	146,141
Domestic equity securities	81,504	395	81,109
Foreign debt securities	25,640	—	25,640
Foreign equity securities	22,039	132	21,907
Pooled funds	190,476	5,137	185,339
Life insurance company general accounts	309,009	4,023	304,986
Other	7,794	5,545	2,249
Total	¥2,125,161	¥1,160,721	¥964,440

(Millions of yen)

	As of March 31, 2018		
	Total	With quoted market price in an active market	Without quoted market price in an active market
Cash and cash equivalents	¥161,990	¥161,904	¥86
Debt instruments			
Japanese government bonds and local government bonds	674,227	653,467	20,760
Domestic corporate bonds	169,188	—	169,188
Foreign government bonds	35,686	14,314	21,372
Foreign corporate bonds	1,580	687	893
Equity securities			
Domestic securities	173,380	171,313	2,067
Foreign securities	88,333	88,333	—
Beneficiary certificates of securities investment trust			
Domestic debt securities	138,100	1,140	136,960
Domestic equity securities	89,497	610	88,887
Foreign debt securities	27,784	—	27,784
Foreign equity securities	23,371	181	23,190
Pooled funds	198,638	5,309	193,329
Life insurance company general accounts	296,732	3,295	293,437
Other	6,923	5,780	1,143
Total	¥2,085,429	¥1,106,333	¥979,096

(Millions of yen)

	As of March 31, 2019		
	Total	With quoted market price in an active market	Without quoted market price in an active market
Cash and cash equivalents	¥208,336	¥208,126	¥210
Debt instruments			
Japanese government bonds and local government bonds	535,579	517,943	17,636
Domestic corporate bonds	168,285	—	168,285
Foreign government bonds	18,854	17,818	1,036
Foreign corporate bonds	557	89	468
Equity securities			
Domestic securities	200,074	198,189	1,885
Foreign securities	97,736	97,736	—
Beneficiary certificates of securities investment trust			
Domestic debt securities	130,334	2,343	127,991
Domestic equity securities	102,423	2,095	100,328
Foreign debt securities	15,668	—	15,668
Foreign equity securities	27,672	591	27,081
Pooled funds	163,020	5,493	157,527
Life insurance company general accounts	294,481	3,528	290,953
Other	35,458	10,093	25,365
Total	¥1,998,477	¥1,064,044	¥934,433

Funding policy

NTT Group's funding policy takes into account various factors such as funded status of the plan assets, and actuarial calculations. Contributions to the plan assets are intended to cover benefits for services to be provided in the future.

In order to be able to maintain financial balance over the future, NTT CDBP and the contract-type corporate pension plans stipulate that the amount of the premium be recalculated every five years and every three years, respectively, as of the end of the fiscal year. However, if there is a significant change in the environment surrounding the pension finance, NTT Group will review the financial status as necessary.

Management policy with respect to pension assets

NTT Group's management policy with respect to pension assets is formulated with the objective of ensuring steady disbursement of benefits in future periods. Therefore, the long-term aim of asset management is to secure the total profits deemed necessary to ensure sound pension financing. To achieve this, NTT Group selects various investments and takes into consideration their expected return and risks, and the correlation among the selected investments. The Group then sets the target of allocation ratio for plan assets and endeavors to maintain that ratio. The target allocation ratio for plan assets is determined from a mid- to long-term perspective and is reviewed annually. In the event that there is a significant change in the investment environment, the Group reviews the target allocation ratio for plan assets as necessary.

Target allocation ratio for plan assets

	Date of transition to IFRS (April 1, 2017)	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Domestic bonds	59.8%	59.0%	57.2%
Domestic stocks	12.8%	13.0%	14.0%
Foreign bonds	3.5%	3.8%	2.0%
Foreign stocks	8.2%	8.4%	9.0%
Life insurance company general accounts	15.7%	15.8%	15.8%
Other	—	—	2.0%
Total	100.0%	100.0%	100.0%

“Other” includes investments in alternative assets such as privately placed REITs (Real Estate Investment Trust). Alternative assets have different risk-return characteristics from traditional investments such as stocks and bonds.

24. Provisions

Changes in provisions

(Millions of yen)

	Asset retirement obligations	Provision for environmental measures	Provision for point programs	Other	Total
Date of transition to IFRS (April 1, 2017)	23,700	17,359	30,593	25,281	96,933
Provision	2,918	—	15,135	16,029	34,082
Business combinations	—	—	—	(298)	(298)
Increase due to passage of time	650	—	—	—	650
Use	(1,058)	(4,393)	(12,463)	(13,165)	(31,079)
Reversal	—	—	(1,790)	(1,842)	(3,632)
Foreign currency translation adjustments	(13)	—	—	458	445
Other	1,470	—	532	604	2,606
As of March 31, 2018	27,667	12,966	32,007	27,067	99,707
Current liabilities	2,385	3,033	30,898	18,138	54,454
Non-current liabilities	25,282	9,933	1,109	8,929	45,253
	27,667	12,966	32,007	27,067	99,707

(Millions of yen)

	Asset retirement obligations	Provision for environmental measures	Provision for point programs	Other	Total
As of March 31, 2018	27,667	12,966	32,007	27,067	99,707
Provision	1,700	133	11,408	30,537	43,778
Business combinations	—	—	—	(9)	(9)
Increase due to passage of time	286	—	—	—	286
Use	(3,219)	(989)	(12,850)	(18,474)	(35,532)
Reversal	—	—	(7,055)	(6,830)	(13,885)
Foreign currency translation adjustments	18	—	—	(506)	(488)
Other	1,633	—	551	1,295	3,479
As of March 31, 2019	28,085	12,110	24,061	33,080	97,336
Current liabilities	2,706	6,252	23,224	24,859	57,041
Non-current liabilities	25,379	5,858	837	8,221	40,295
	28,085	12,110	24,061	33,080	97,336

Although most of the provisions are asset retirement obligations and provision for point programs. Asset retirement obligations are expected to be used when the cost of dismantling and removal of the asset and the cost of restitution occurred. Provision for point programs are to be used when the points are consumed, the amount and the timing of payments are based on the current plan and subject to change.

25. Other Liabilities

Details of other liabilities

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Contract liabilities	697,279	759,162	776,401
Real estate tax payable and others	132,100	129,672	129,620
Accrued consumption tax	71,999	89,155	79,388
Provisions	96,933	99,707	97,336
Advances received (leasing out)	36,441	38,116	37,661
Other	182,538	205,293	150,653
Total	1,217,290	1,321,105	1,271,059
Current liabilities	958,862	1,046,582	988,244
Non-current liabilities	258,428	274,523	282,815
Total	1,217,290	1,321,105	1,271,059

26. Equity and Other Components of Equity

(1) Total number of authorized shares, issued shares and treasury stock

All shares issued by the Company are common shares with no par value, and the issued shares have been fully paid.

Changes in the total number of authorized shares, the number of issued shares and treasury stock

(Shares)

	Total number of authorized shares	Issued shares	Treasury stock
Date of transition to IFRS (April 1, 2017)	6,192,920,900	2,096,394,470	81,026,959
Purchase of treasury stock under resolution of the Board of Directors	—	—	44,239,800
Repurchase of treasury stock based on less-than-one-unit share purchase demand	—	—	54,223
Disposal of treasury stock based on additional less-than-one-unit share purchase demand	—	—	(2,424)
Cancellation of treasury stock	—	—	—
As of March 31, 2018	6,192,920,900	2,096,394,470	125,318,558
Purchase of treasury stock under resolution of the Board of Directors	—	—	53,646,000
Repurchase of treasury stock based on less-than-one-unit share purchase demand	—	—	37,070
Disposal of treasury stock based on additional less-than-one-unit share purchase demand	—	—	(3,882)
Cancellation of treasury stock	—	(146,000,000)	(146,000,000)
As of March 31, 2019	6,192,920,900	1,950,394,470	32,997,746

On November 24, 1995, based on the resolution of the Board of Directors' meeting held on April 28, 1995, NTT capitalized an aggregate amount of ¥15,600 million of its additional paid-in capital to common stock and made a free share distribution of 312,000 shares, which represented 2% of the outstanding shares, to shareholders of record as at September 30, 1995.

Treasury stock

On December 12, 2016, the Board of Directors resolved that NTT would acquire up to 33 million shares of its outstanding common stock, amounting to not more than ¥150 billion from December 13, 2016 through June 30, 2017. Based on this resolution, the Company repurchased 21,693,800 shares of its common stock for ¥106,763 million from December 2016 through March 2017. The Company also repurchased 8,893,400 shares of its common stock for ¥43,235 million in April 2017 and concluded the repurchase of its common stock authorized by the Board of Directors' resolution.

On September 25, 2017, the Board of Directors resolved that NTT would acquire up to 30 million shares of its outstanding common stock, amounting to not more than ¥150 billion from September 26, 2017 through March 31, 2018. Based on this resolution, NTT repurchased 26,946,400 shares of its common stock for ¥150,000 million from October 2017 through December 2017 and concluded the repurchase of its common stock authorized by the Board of Directors' resolution.

On February 21, 2018, the Board of Directors resolved that NTT would acquire up to 31 million shares of its outstanding common stock, amounting to not more than ¥150 billion from February 22, 2018 through June 30, 2018. Based on this resolution, the Company repurchased 29,178,000 shares of its common stock for ¥150,000 million from March 2018 through May 2018 and concluded the repurchase of its common stock authorized by the Board of Directors' resolution.

On September 18, 2018, the Board of Directors resolved that NTT would cancel 146 million shares of its treasury stock on September 26, 2018, and as a result of cancelling such shares on September 26, 2018, additional paid-in capital decreased ¥2 million and retained earnings decreased ¥718,258 million.

On November 6, 2018, the Board of Directors resolved that the Company would acquire up to 36 million shares of its outstanding common stock, amounting to not more than ¥150 billion from November 7, 2018 through March 29, 2019. Based on this resolution, NTT repurchased 32,868,000 shares of its common stock for ¥150,000 million from November 2018 through January 2019 and concluded the repurchase of its common stock authorized by the Board of Directors' resolution.

On May 10, 2019, the Board of Directors resolved that the Company would acquire up to 53 million shares of its outstanding common stock, amounting to not more than ¥250 billion from May 13, 2019 through July 31, 2019. Based on this resolution, NTT repurchased 24,600,000 shares of its common stock for ¥118,829 million in May, 2019.

(2) Distribution of Retained Earnings

The amount of surplus available for distribution under the Companies Act of Japan as of March 31, 2019 was ¥1,475,323 million. Dividends from surplus for the fiscal year are not recorded in the financial statements for that fiscal year, but are recorded in the following fiscal year after the general meeting of shareholders has approved the distribution. Retained earnings on the consolidated financial statements for the current fiscal year include a dividend of ¥182,153 million (¥95 per share) approved at the General Meeting of Shareholders to be held on June 25, 2019.

(i) The amount of dividends paid out in the fiscal years ended March 31, 2018 and March 31, 2019

Resolution	Class of shares	Source of dividends	Total dividend (millions of yen)	Dividend per share (yen)	Record date	Effective date
June 27, 2017 Ordinary General Meeting of Shareholders	Common shares	Retained earnings	120,922	60	March 31, 2017	June 28, 2017
November 10, 2017 Board of Directors	Common shares	Retained earnings	150,484	75	September 30, 2017	December 11, 2017
June 26, 2018 Ordinary General Meeting of Shareholders	Common shares	Retained earnings	147,831	75	March 31, 2018	June 27, 2018
November 6, 2018 Board of Directors	Common shares	Retained earnings	165,774	85	September 30, 2018	December 5, 2018

(ii) Dividends declared with a record date during the fiscal year ended March 31, 2019 and an effective date during the fiscal year ending March 31, 2020

Resolution	Class of shares	Source of dividends	Total dividend (millions of yen)	Dividend per share (yen)	Record date	Effective date
June 25, 2019 Ordinary General Meeting of Shareholders	Common shares	Retained earnings	182,153	95	March 31, 2019	June 26, 2019

(3) Capital Management

In order to achieve sustainable development, NTT aims to improve capital efficiency by acquiring treasury stock while focusing on profit growth. Following are the main indicators that the Company uses in capital management:

- Earnings per share (EPS): profit per share

Description about profit per share is presented in “Note 30. Earnings per Share.”

(4) Put Options Granted to Non-controlling Interests

With regard to short put options for subsidiary shares that the NTT Group has granted to the owners of non-controlling interests, the amounts deducted from additional paid-in capital were ¥81,900 million, ¥56,546 million, and ¥27,802 million, respectively, at the date of transition to IFRS, at the end of the fiscal year ended March 31, 2018 and the end of the fiscal year ended March 31, 2019.

(5) Other Components of Equity

Details and changes in other components of equity

(Millions of yen)

	Change in the fair value of financial assets measured at fair value through other comprehensive income (Note 1, 2)	Cash flow hedge	Remeasurements of defined benefit plans	Foreign currency translation adjustment	Total
Date of transition to IFRS (April 1, 2017)	129,879	(5,579)	–	55,153	179,453
Other comprehensive income	16,134	1,861	31,230	3,190	52,415
Transfer to retained earnings	–	–	(31,230)	–	(31,230)
Transfer to non-financial assets, etc.	–	–	–	–	–
As of March 31, 2018	146,013	(3,718)	–	58,343	200,638
Cumulative effect of adoption of IFRS 9 “Financial Instruments”	507	(2,939)	–	–	(2,432)
As of April 1, 2018	146,520	(6,657)	–	58,343	198,206
Other comprehensive income	(498)	(2,363)	(16,115)	(9,431)	(28,407)
Transfer to retained earnings	(7,732)	–	16,115	–	8,383
Transfer to non-financial assets, etc.	–	3,905	–	–	3,905
As of March 31, 2019	138,290	(5,115)	–	48,912	182,087

The details of other comprehensive income included in non-controlling interests is as follows.

(Millions of yen)

	Changes in the fair value of financial assets measured at fair value through other comprehensive income (Note 1, 2)	Cash flow hedge	Remeasurements of defined benefit plans	Foreign currency translation adjustment	Total
From April 1, 2017 to March 31, 2018	12,915	347	1,048	1,572	15,882
From April 1, 2018 to March 31, 2019	4,600	(267)	93	43	4,469

Notes:

1. “Change in the fair value of financial assets measured at fair value through other comprehensive income” represents unrealized gains or losses on securities at the date of transition to IFRS and for the fiscal year ended March 31, 2018.
2. The balance as of March 31, 2019 includes amounts related to “Asset held for sale” under IFRS 5. Details are presented in “Note 10. Assets Held for Sale.”

(6) Other Comprehensive IncomeDetails of other comprehensive income and related tax effects

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Items that will not be reclassified to profit or loss		
Financial assets measured at fair value through other comprehensive income (Note)		
Amounts arising during the period	—	8,411
Before tax effect	—	8,411
Tax effect	—	(2,444)
After tax effect	—	5,967
Remeasurements of the defined benefit plans		
Amounts arising during the period	48,287	(18,277)
Before tax effect	48,287	(18,277)
Tax effect	(15,577)	5,027
After tax effect	32,710	(13,250)
Share of other comprehensive income of entities accounted for using the equity method		
Amounts arising during the period	(627)	20,685
Before tax effect	(627)	20,685
Tax effect	195	(25,322)
After tax effect	(432)	(4,637)

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Items that may be reclassified subsequently to profit or loss		
Financial assets measured at fair value through other comprehensive income (Note)		
Amounts arising during the period	25,536	—
Amounts reclassified to profit	(2,792)	—
Before tax effect	22,744	—
Tax effect	(7,142)	—
After tax effect	15,602	—
Cash flow hedges		
Amounts arising during the period	(10,947)	29,434
Amounts reclassified to profit	14,139	(31,776)
Before tax effect	3,192	(2,342)
Tax effect	(935)	(442)
After tax effect	2,257	(2,784)
Foreign currency translation adjustments		
Amounts arising during the period	(23,098)	3,334
Amounts reclassified to profit	—	(543)
Before tax effect	(23,098)	2,791
Tax effect	—	—
After tax effect	(23,098)	2,791
Share of other comprehensive income of entities accounted for using the equity method		
Amounts arising during the period	9,246	(4,951)
Amounts reclassified to profit	45,214	—
Before tax effect	54,460	(4,951)
Tax effect	(13,202)	(7,074)
After tax effect	41,258	(12,025)
Total other comprehensive income		
Amounts arising during the period	48,397	38,636
Amounts reclassified to profit	56,561	(32,319)
Before tax effect	104,958	6,317
Tax effect	(36,661)	(30,255)
After tax effect	68,297	(23,938)

Note: Unrealized gains (or losses) on securities for the fiscal year ended March 31, 2018

(7) Equity Transactions with Non-controlling Interests

Changes in additional paid-in capital due to equity transactions with non-controlling interests

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Changes in additional paid-in capital due to equity transactions with non-controlling interests		
Changes in NTT's ownership interest by making NTT Urban Development Corporation a wholly owned subsidiary	—	(114,030)
Effect on tax and others by NTT DOCOMO's share repurchase of its treasury stock*	(3,371)	(9,548)
Effect of changes in NTT's ownership interest by NTT DOCOMO's share repurchase of its treasury stock	—	62,417
Other	(19,096)	(72)
Net increase (decrease) in additional paid-in capital due to transactions with non-controlling interests	(22,467)	(61,233)

* Description about total income taxes recognized in additional paid-in capital are presented in "Note 18. Income Taxes."

Making NTT Urban Development Corporation a wholly owned subsidiary of NTT-SH Corporation

NTT-SH Corporation ("NTT-SH"), which is a wholly owned subsidiary of NTT, conducted a series of transactions for the purpose of making NTT Urban Development Corporation ("NTT UD") a wholly owned subsidiary of NTT-SH by acquiring all of the common shares of NTT UD (the "NTT UD Shares"), as described below.

Tender offer

On October 15, 2018, NTT-SH resolved to acquire all of the NTT UD Shares through a tender offer, and purchased the NTT UD Shares for a total purchase price of ¥154,316 million from October 16, 2018 through November 27, 2018. As a result, NTT Group's ownership interests in NTT UD increased from 67.30% to 95.20%.

Contribution in kind

On December 10, 2018, the Board of Directors of NTT resolved to contribute all of its NTT UD Shares to NTT-SH and on December 13, 2018, completed the transaction. The contribution in kind did not change the Group's ownership interests in NTT UD.

Demand for sales of shares

On December 17, 2018, pursuant to the Companies Act of Japan, NTT-SH demanded that the owners of non-controlling interests in NTT UD sell all of their ownership interests in NTT UD (4.8%) to NTT-SH (total amount of ¥26,517 million). On the same day, the Board of Directors of NTT UD approved the demand. As a result, NTT Group's ownership interest in NTT UD is deemed 100% and accounted for as such.

As a result of the series of transactions described above, additional paid-in capital decreased by ¥114,030 million in the fiscal year ended March 31, 2019. NTT-SH completed the acquisition of all of the NTT UD Shares and made NTT UD a wholly owned subsidiary of NTT-SH as of January 11, 2019.

NTT DOCOMO's repurchase of its treasury stock

On October 31, 2018, the Board of Directors of NTT DOCOMO resolved that the company would repurchase up to 260 million outstanding shares of its common stock for ¥600 billion during November 1, 2018 through March 31, 2019. On November 6, 2018, the Board of Directors of NTT DOCOMO resolved to launch a tender offer to repurchase up to 257,953,468 shares of its outstanding common stock for ¥600 billion between November 7, 2018 and December 7, 2018. As a result of NTT's participation in the tender offer, 256,752,200 shares of NTT DOCOMO's common stock held by NTT were purchased for ¥597,206 million, and NTT Group's ownership interest in NTT DOCOMO decreased from 66.65% to 64.11%. In connection with this series of transactions, additional paid-in capital increased by ¥52,869 million in the fiscal year ended March 31, 2019.

On April 26, 2019, the Board of Directors of NTT DOCOMO resolved that the company would repurchase up to 128.3 million outstanding shares of its common stock for ¥300,000 million during May 7, 2019 through April 30, 2020. Based on this resolution, NTT DOCOMO repurchased 9,271,200 shares of its common stock for ¥22,854 million in May, 2019.

(8) Other

According to the NTT Act, NTT must obtain authorization from the Minister of Internal Affairs and Communications for certain financial matters, including the issuance of new shares, bonds with a right to subscribe for new shares, and disposal of surplus. The details of NTT Act are presented in “Item 2. Business Overview, 2. Risk Factors.”

27. Operating Revenues**(1) Disaggregation of Revenues**

(i) Revenue from contracts with customers and others

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Revenue from contracts with customers	11,395,834	11,470,828
Revenue from other sources	386,314	409,014
Total	11,782,148	11,879,842

Revenues recognized from other sources mainly comprises real estate rental income and lease income under IAS 17, interest and dividend income under IFRS 9, and insurance income under IFRS 4.

(ii) Relationship between disaggregated revenues and segment revenues

(Millions of yen)

Main Services	Fiscal year ended March 31, 2018					
	Segment					
	Mobile communi- cations business	Regional communi- cations business	Long distance and international communi- cations business	Data communi- cations business	Other business	Total
Fixed voice-related services	-	941,834	205,067	-	-	1,146,901
Mobile voice-related services	933,290	-	-	-	-	933,290
IP/packet communications services	2,120,478	1,228,704	403,675	-	4,581	3,757,438
Sales of telecommunications terminal equipment	789,279	75,309	13,667	-	-	878,255
System integration services	-	122,272	1,381,445	1,927,244	26,419	3,457,380
Other services	856,795	217,075	135,869	-	399,145	1,608,884
Total	4,699,842	2,585,194	2,139,723	1,927,244	430,145	11,782,148
Revenue from contracts with customers	4,679,684	2,470,654	2,019,061	1,927,244	299,191	11,395,834
Revenue from other sources	20,158	114,540	120,662	-	130,954	386,314

(Millions of yen)

Main Services	Fiscal year ended March 31, 2019					
	Segment					
	Mobile communications business	Regional communications business	Long distance and international communications business	Data communications business	Other business	Total
Fixed voice-related services	-	889,587	188,080	-	-	1,077,667
Mobile voice-related services	946,742	-	-	-	-	946,742
IP/packet communications services	2,138,545	1,157,148	420,806	-	4,723	3,721,222
Sales of telecommunications terminal equipment	843,700	75,535	9,927	-	-	929,162
System integration services	-	118,711	1,410,231	2,037,782	27,348	3,594,072
Other services	845,724	222,960	133,519	-	408,774	1,610,977
Total	4,774,711	2,463,941	2,162,563	2,037,782	440,845	11,879,842
Revenue from contracts with customers	4,750,467	2,346,964	2,029,149	2,037,782	306,466	11,470,828
Revenue from other sources	24,244	116,977	133,414	-	134,379	409,014

In its five business segments of Mobile communications business, Regional communications business, Long distance and international communications business, Data communications business, and Other business, NTT Group provides the following six services: fixed voice-related services, mobile voice-related services, IP/packet communications services, sales of telecommunications terminal equipment, system integration services, and other services. Description is presented in “Note 3. Significant Accounting Policies (16) Revenue.”

(2) Contract Balances

Information on receivables, contract assets, and contract liabilities

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Receivables from contracts with customers (Trade and other receivables)	2,043,968	2,346,747	2,422,895
Contract assets (Other current assets)	89,677	100,110	107,169
Contract liabilities (Other liabilities)	697,279	759,162	776,401

Contract assets are mainly related to NTT Group’s rights to compensation for its work on system integration that has created a customer-controlled asset as of the reporting date, but for which the Group has not yet claimed. Contract assets are transferred to receivables when the right to payment becomes unconditional. Contract liabilities are mainly related to unused points that have been granted to customers as they use mobile phones and FLET’S Hikari, and to consideration received in advance and accounted for as deferred revenues from the initial construction fees for FLET’S Hikari and DOCOMO Hikari and activation.

Of the revenues recognized in the fiscal year ended March 31, 2018 and March 31, 2019, ¥286,992 million and ¥333,110 million, respectively, were included in the balance of contract liabilities as of the beginning of the fiscal year.

The amount of revenue recognized in the fiscal years ended March 31, 2018 and March 31, 2019 due to performance obligations satisfied, or partially satisfied, in the past periods was immaterial.

(3) Transaction Price Allocated to the Remaining Performance Obligations

(millions of yen)

Types of performance obligations	As of March 31, 2019	Description about the expected time of satisfaction of performance obligations
Activation fees in mobile voice-related service	148,383	Expected to be satisfied within approximately 2 years
Installation fees, activation fees, and other fees in IP/packet communications services	152,327	Expected to be satisfied within approximately 11 years
Point programs in mobile voice-related service and IP/packet communications services	103,738	Expected to be satisfied within approximately 4 years
Integrated IT solution and development of system and software in system integration services	2,786,956	Expected to be satisfied within approximately 4 years.
Other than above (mainly common service charges under non-cancelable lease contracts, construction work)	116,783	Common service charges under non-cancelable lease contracts are expected to be satisfied within approximately 19 years, construction works are within approximately 22 years, others are within approximately 10 years.

The practical expedient of Paragraph 121 of IFRS 15 has been applied to residual performance obligations excluding system integration services. Remaining performance obligations related to contracts expected to be satisfied within 1 year are not included. System integration services has not been applied. Remaining performance obligations related to contracts expected to be satisfied within 1 year are included

(4) Assets Recognized from the Costs to Obtain or Fulfill a Contract with a Customer

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Assets recognized from the costs to obtain a contract	286,133	258,847	263,983
Assets recognized from the costs to fulfill a contract	64,725	77,460	92,726
Total	350,858	336,307	356,709

NTT Group recognizes as an asset the incremental cost of obtaining a contract and the cost to fulfill a contract with a customer if it expects to recover those costs. The asset is recorded in "Other non-current assets" in the consolidated statement of financial position. The incremental costs of obtaining a contract are those that the Group incurs to obtain a contract with a customer that it would not have incurred if the contract had not been obtained. The costs to fulfill a contract are those that the Group incurs to fulfill a contract generated before it transfers goods or services to a customer.

The incremental costs of obtaining a contract, which NTT Group recognizes as an asset, are mainly commissions to sales agents that were incurred to acquire customers, and incremental costs that would not have been incurred if the contract had not been obtained. The costs to fulfill a contract are mainly direct personnel expenses related to the reception clerical work to accept new contracts, and costs directly related to the service provided to the customer. When recognizing as an asset the incremental cost for obtaining a contract and the cost to fulfill a contract, only the amount expected to be recovered is recognized as an asset, taking into account the cancellation rates of customers (contractors). The asset is amortized over the estimated average contract term of the related service.

Assets recognized from contract costs are reviewed quarterly for recoverability. The Group assesses whether the carrying amount of the asset exceeds the remaining consideration that is expected to be received during the contract term of providing related services in consideration of the cancellation rates and other factors less costs that are directly related to the goods or services provided and not yet recognized as an expense. These estimates and assumptions may have a significant impact on the amount of assets recognized from contract costs if the underlying circumstances change and impairment loss is recognized for the assets. Therefore, NTT Group considers that such estimates are important.

The amounts of amortization on the assets recognized from contract costs for the fiscal year ended March 31, 2018 and the fiscal year ended March 31, 2019 were ¥173,000 million and ¥142,062 million, respectively, and no impairment losses accrued.

28. Operating Expenses

(1) Expenses for purchase of goods and services and other expenses

Details of items recorded as expenses for purchase of goods and services and other expenses

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Outsourcing expense	1,360,922	1,475,068
Cost of equipment purchased	871,724	896,170
*Cost of goods	937,820	921,104
Agency commissions	473,793	444,524
Total	3,644,259	3,736,866

*Cost of goods mainly includes purchase of goods for sales and materials for construction work.

(2) Research and development expenses

The research and development expenses that were expensed when incurred in the fiscal years ended March 31, 2018 and 2019 amounted to ¥208,567 million and ¥211,322 million, respectively. Description of research and development expenses are presented in “ITEM2 BUSINESS OVERVIEW 5. Research and Development ” and accounting method is presented in “Note 3. Significant Accounting Policies (10) Intangible Assets.”

29. Finance Income and Finance Costs

Details of finance income

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Interest income (Note 1)	6,010	—
Financial assets measured at amortized cost	—	5,805
Dividend income	9,676	—
Financial assets measured at fair value through other comprehensive income	—	9,953
Net exchange differences (Note 2)	20,146	—
Net changes in fair value of financial assets measured at fair value through profit or loss	—	3,157
Gain on sale of securities	8,021	—
Financial assets measured at amortized cost	—	2,444
Other	111	3,106
Total	43,964	24,465

Notes:

1. Gains or losses on valuation of interest rate swap contracts are included in the interest income.
2. Gains or losses on valuation of forward foreign-exchange contracts and currency swap contracts are included in the net exchange differences.

“Net changes in fair value of financial assets measured at fair value through profit or loss” include changes in fair value, interest income, dividend income, and foreign exchange translation gain or loss.

Interest income on lease receivables of ¥15,694 million and ¥17,000 million were included in “Operating revenues” for the fiscal year ended March 31, 2018 and the fiscal year ended March 31, 2019, respectively.

In addition to the above, interest income on loans receivables and others of ¥25,223 million was included in “Operating revenues” for the fiscal year ended March 31, 2018. Interest income on financial assets measured at fair value through profit or loss of ¥4,746 million was included in “Operating revenues” for the fiscal year ended March 31, 2019. Interest income on financial assets measured at amortized cost of ¥26,542 million was included in “Operating revenues” for the fiscal year ended March 31, 2019.

Details of finance costs

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Interest expenses (Note 1)	34,611	—
Financial liabilities measured at amortized cost	—	25,426
Net exchange differences (Note 2)	—	4,819
Impairment losses	—	—
Financial assets measured at amortized cost	—	648
Net changes in fair value of financial assets measured at fair value through profit or loss	—	354
Loss on sale of securities (Note 3)	30,208	—
Financial assets measured at amortized cost	—	4,173
Net changes in fair value of derivatives to which hedge accounting is not applied	26,829	—
Other (Note 4)	5,535	942
Total	97,183	36,362

1. Gains or losses on valuation of interest rate swap contracts are included in the interest expenses.
2. Gains or losses on valuation of forward foreign-exchange contracts and currency swap contracts are included in the net exchange differences.
3. The details of loss on sale of securities for the fiscal year ended March 31, 2018 are presented in “Note 17. Investments Accounted for Using the Equity Method.”
4. Other for the fiscal year ended March 31, 2018 included loss on valuation of investment securities of ¥5,496 million.

Provision for allowance for doubtful accounts and bad debt expenses of ¥17,765 million were included in the operating expenses for the fiscal year ended March 31, 2018, whereas impairment losses of ¥24,580 million on financial assets measured at amortized cost were included in the operating expenses for the fiscal year ended March 31, 2019.

Interest expenses of ¥10,598 million and ¥15,022 million were included in the operating expenses of the fiscal years ended March 31, 2018 and 2019, respectively.

30. Earnings per ShareBasic earnings per share

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Profit attributable to NTT (millions of yen)	897,887	854,561
Weighted average number of the outstanding common shares (share)	1,995,912,757	1,941,068,728
Basic earnings per share (yen)	449.86	440.25

Diluted earnings per share attributable to NTT is not stated, because NTT did not have potentially dilutive common shares during the periods.

31. Financial Instruments

At the date of transition to IFRS, and for the fiscal year ended March 31, 2018, NTT applied the previous accounting standards (U.S. GAAP) pursuant to the exemptions of IFRS 1 related to IFRS 7 and IFRS 9, except for financial instruments that are not included within the scope of application of IFRS 9. NTT applied IFRS 7 and IFRS 9 to the fiscal year ended March 31, 2019.

(1) Financial Risk Management

NTT Group is exposed to financial risks (credit risk, liquidity risk, and market risk) in conducting business activities. In order to avoid or reduce such risks, it manages risks based on certain policies. In addition, the Group reports on the status of major financial risk management to its management.

(i) Credit risk management

<The date of transition to IFRS and the fiscal year ended March 31, 2018>

Allowance for doubtful accounts

NTT Group holds several financing receivables, including loans and lease receivables. These financing receivables are mainly held by the financial subsidiaries. The Group manages these financing receivables by classifying them into “Installment sales receivables,” “Lease receivables,” “Loans receivables,” “Credit receivables,” and “Others.”

Rollforward of allowance for doubtful accounts and related financing receivables

(Millions of yen)

	Installment sales receivables	Lease receivables	Loans receivables	Credit receivables	Others	Total
Allowance for doubtful accounts						
Date of transition to IFRS (April 1, 2017)	4,102	4,142	805	13,643	9,585	32,277
Provision (reversal)	(742)	704	29	18,032	(1,178)	16,845
Charge off	(46)	(714)	(20)	(13,103)	(4,078)	(17,961)
As of March 31, 2018	3,314	4,132	814	18,572	4,289	31,121
Allowance for collectively evaluated financing receivables	3,245	1,475	519	18,572	56	23,867
Allowance for individually evaluated financing receivables	69	2,657	295	—	4,233	7,254
Financing receivables						
Date of transition to IFRS (April 1, 2017)	938,413	437,912	96,189	400,093	10,297	1,882,904
Collectively evaluated financing receivables	938,316	434,964	94,777	400,093	705	1,868,855
Individually evaluated financing receivables	97	2,948	1,412	—	9,592	14,049
As of March 31, 2018	947,778	474,766	92,612	488,385	5,915	2,009,456
Collectively evaluated financing receivables	947,708	472,024	92,311	488,385	1,646	2,002,074
Individually evaluated financing receivables	70	2,742	301	—	4,269	7,382

On the date of transition to IFRS, as of March 31, 2018 and March 31, 2019, the allowance for doubtful accounts on accounts and notes receivables of ¥ 35,724 and ¥ 36,216 million, respectively are not included in the table above.

Aging analysis of financing receivables including overdue receivables

NTT Group determines the credit quality of financing receivables based on the status of past due and the conditions of debtors, among other factors. Financing receivables that are past due over a long period are classified as “delinquent receivables,” and all other receivables are classified as “ordinary receivables”.

(Millions of yen)

Date of transition to IFRS (April 1, 2017)					
	Ordinary receivables		Delinquent receivables	Total	More than 90 days past due but interest is accruing
	Before due date	1–89 days past due	More than 90 days past due		
Installment sales receivables	933,579	2,868	1,966	938,413	3
Lease receivables	522,140	2,498	2,700	527,338	81
Credit receivables	386,373	1,421	12,299	400,093	–
Others	15,402	4	3,313	18,719	–
Total	1,857,494	6,791	20,278	1,884,563	84

(Millions of yen)

Date of transition to IFRS (April 1, 2017)				
	Ordinary receivables	Delinquent receivables	Total	Past due but interest is accruing
	Before due date	Past due		
Loan receivables	295,681	1,319	297,000	–

(Millions of yen)

As of March 31, 2018					
	Ordinary receivables		Delinquent receivables	Total	More than 90 days past due but interest is accruing
	Before due date	1–89 days past due	More than 90 days past due		
Installment sales receivables	944,406	1,891	1,481	947,778	4
Lease receivables	579,726	2,461	2,668	584,855	64
Credit receivables	470,272	2,106	16,007	488,385	–
Others	8,899	2	3,618	12,519	39
Total	2,003,303	6,460	23,774	2,033,537	107

(Millions of yen)

As of March 31, 2018				
	Ordinary receivables	Delinquent receivables	Total	More than 90 days past due but interest is accruing
	Before due date	Past due		
Loan receivables	347,822	1,133	348,955	10

Loan commitments

NTT Group conducts the cash advance business incidental to the credit card business. The balance of unused loan commitments as of the date to transition to IFRS and March 31, 2018 stood at ¥249,100 million and ¥275,111 million, respectively.

Credit lines are not necessarily executed to the maximum amount, because these contracts contain a clause to lower the credit lines when these are reasonable grounds.

Concentration of credit risk

As of March 31, 2018, NTT Group did not have any significant credit concentration of business transactions with a specific party that could severely impact the Group's operations in case the party went bankrupt.

<Fiscal year ended March 31, 2019>

Receivables arising from NTT Group's business activities are exposed to the credit risk of customers. Bonds held for the management of surplus and shares held for business policy purposes are mainly exposed to the credit risk of the issuer. In addition, derivative transactions conducted by NTT Group for the purpose of hedging foreign exchange risk and interest rate risk are exposed to the credit risk of counterparty financial institutions.

To appropriately manage the credit risk on trade receivables, NTT Group, in principle, defines credit limits or transaction conditions based on its credit management rules and monitors the balance of receivables from business partners with high credit risk. In addition, the Group has collateral or credit enhancement for specific credit exposures.

For the management of surplus and derivative transactions, in order to prevent the occurrence of credit risk based on the Group's financial rules, the Group, in principle, investments in bonds that meet certain rating criteria or conducts transactions with high-rating financial institutions, and monitors the status. NTT Group does not have any excessive concentration of business transactions with a single party or a group to which the party belongs.

Maximum credit risk exposure of NTT Group

(i) Trade and other receivables (including lease receivables and contract assets)

Credit risk exposures on trade and other receivables and loss allowance

As of March 31, 2019

(Millions of yen)

Overdue period	Total carrying amounts	Loss allowance	Credit impairment
Within 30 days	4,543,398	(17,627)	N
30-90 days	135,191	(3,728)	N
More than 90 days	131,103	(52,240)	Y
Total	4,809,692	(73,595)	

* Accounts receivable - other, telecommunications terminal equipment installment sales receivables and installment sales receivables (total amount is ¥1,668,210) from other than contracts with customers are included in the table above.

(ii) Other financial assets (debt securities)

Credit risk exposures on other financial assets (debt securities) measured at an amortized cost

As of March 31, 2019

(Millions of yen)

External rating	Amortized cost method	
	Recorded at the same amount as the 12-month expected credit losses	Loss allowance
BBB to AAA	31,300	—
No external rating	94,546	(4,089)
Total	125,846	(4,089)

Of the table above, those with no external rating have been verified as equivalent to an investment grade based on the debtor's financial status and information from credit research companies. There are no debt securities that are overdue.

(iii) Other financial assets (operating loans)

NTT Group classifies credit exposures mentioned below based on the substantive judgment, taking into consideration not only the information on overdue periods but also the information available, such as external ratings.

Credit risk exposure on operating loans

As of March 31, 2019

(Millions of yen)

Classification	Recorded at the same amount as the 12-month expected credit losses	Recorded at the same amount as the lifetime expected credit losses		Credit impaired financial assets purchased or structured	Total
		Not credit impaired financial assets	Credit impaired financial assets		
Operating loans					
Within 30 days	180,667 (802)	— (—)	— (—)	— (—)	180,667 (802)
More than 30 days	— (—)	— (—)	— (—)	— (—)	— (—)
More than 90 days	— (—)	— (—)	— (—)	— (—)	— (—)
Total	180,667 (802)	— (—)	— (—)	— (—)	180,667 (802)

The amounts mentioned above are total carrying amounts. The amounts of loss allowance are presented in parentheses.

(iv) Loan commitments and financial guarantee contracts

NTT Group conducts the cashing business incidental to the credit card business and offers loan contracts that promise to lend funds up to a certain limit. As of March 31, 2019, the credit risk exposure of the unused loan commitments under the cashing business was ¥307,459 million (of which, ¥266,013 million was related to the credit card business).

NTT Group also conducts the financial guarantee business against receivables of third parties. As of March 31, 2019, the credit risk exposure of the financial guarantee contracts was ¥19,470 million (including ¥14,975 million regarding jointly controlled entities). The earliest period during which these loan commitments and financial guarantee contracts may be exercised is within one year.

The above exposures of loan commitments and financial guarantee contracts are recorded at the same amount as the 12-month expected credit losses and loss allowance is little considering feasibility.

Changes in loss allowance during the period

As of March 31, 2019

(Millions of yen)

Classification	Recorded at the same amount as the 12-month expected credit losses	Recorded at the same amount as the lifetime expected credit losses			Credit impaired financial assets purchased or structured	Total
		Not credit impaired financial assets	Credit impaired financial assets	Trade receivables, contract assets, or leased assets*		
As of April 1, 2018	4,404	—	164	62,807	—	67,375
Increase	650	—	—	51,063	—	51,713
Decrease	163	—	164	40,275	—	40,602
As of March 31, 2019	4,891	—	—	73,595	—	78,486

*Loss allowance for accounts receivable - other, telecommunications terminal equipment installment sales receivables and installment sales receivables from other than contracts with customers are included.

Main form of collateral by type of financial assets

The following mainly correspond to financial assets for which a loss allowance is recorded at the same amount as the 12-month expected credit losses.

As of March 31, 2019

(Millions of yen)

Classification	Carrying amount	Main forms of collateral held
Other financial assets		
Operating loans	52,683	Real estate, Aircraft or vessel
Other	1,405	Securities

(ii) Liquidity risk management

Liquidity risk is mainly the risk that NTT Group faces in fulfilling its obligations related to financial liabilities that are settled by cash or other financial assets. The Group's basic policy is to generate funds necessary for its business activities on its own in promoting its business. The funds generated are managed efficiently through inter-group financing. Moreover, the Group aims to secure stable, low-cost funds when raising funds to support business activities.

As of March 31, 2019, NTT Group's cash and deposits and cash equivalents amounted to ¥946.1 billion. Cash equivalents are temporary surplus that will be used as working capital, mainly for debt repayment and investment. Therefore, the balance of cash equivalents changes every year depending on the status of the funding and working capital at that time.

Details of financial liabilities (excluding obligations under finance leases) by due date

As of March 31, 2019

(Millions of yen)

	Within 1 year	Over 1 year and within 5 years	Over 5 years	Total
Short-term borrowings	890,967	—	—	890,967
Trade and other payables	2,092,479	—	—	2,092,479
Long-term borrowings	545,900	1,914,946	1,089,540	3,550,385
Other financial liabilities	30,938	82,865	59,273	173,076
Derivatives	912	6,311	12,405	19,628
Other than derivatives	30,026	76,554	46,868	153,448

Long-term borrowings includes the current portion or balance due within 1 year.

Fair value adjustments arising from fair value hedge accounting are not included.

Details of obligations under finance leases by the due date are presented in "Note 20. Leases."

(iii) Market risk management

Market risk is the risk of fluctuations in market prices, such as foreign exchange rates, interest rates, and stock prices, which affects NTT Group's earnings or the value of its financial instruments. The purpose of market risk management is to control market risk exposure by managing it within acceptable parameters, while maximizing return.

Risk management of foreign exchange and interest rate fluctuations

NTT Group uses derivatives, such as forward exchange contracts, interest rate swap contracts, currency swap contracts, and interest rate option contracts, as necessary, to limit the exposure related to debt and loss of assets that may arise from fluctuations in foreign exchange rates and interest rates. The Group does not enter into derivative transactions for trading purposes. Derivative transactions are carried out in accordance with internal regulations, and are managed by NTT and its subsidiaries' related departments.

(a) Management of foreign exchange rate fluctuation risk

NTT Group performs corporate activities globally, which exposes it to exchange rate fluctuation risks associated with transactions, financing, and investment in currencies other than the functional currency of each local company. NTT Group enters into forward foreign exchange contracts, currency swap agreements, and currency option agreements to hedge the risk of fluctuations in foreign currency exchange rates principally associated with foreign currency-denominated long-term borrowings issued by NTT Group. Such contracts and agreements have the same maturity as the underlying debt. NTT Group judges whether these transactions effectively offset the impact of foreign currency rate fluctuations. The main causes of ineffectiveness in these hedge relationships are currency basis spreads, spot-forward differences on forward exchange contracts, and credit risk of counterparties. The currency basis spreads and the spot-forward differences of forward exchange contracts are excluded from the designation of hedging instruments. The main currencies to be hedged are US dollars and the euros.

(i) Currency risk exposure

Major currency risk exposure (net)

Currency	As of March 31, 2019
USD (thousand USD)	3,906,848
Euro (thousand euros)	1,403,773

The amount of foreign exchange risk hedged by derivatives is excluded.

(ii) Sensitivity analysis of foreign exchange risk

(a) Estimated amount of increase in profit before taxes assuming that Japanese yen depreciated by ¥1

(Millions of yen)

Currency	As of March 31, 2019
USD	3,611
Euro	1,400

The amount of decrease in profit before taxes assuming that the Japanese yen appreciated by ¥1 is the same amount.

(b) Estimated amount of increase in equity assuming that Japanese yen depreciated by ¥1

(Millions of yen)

Currency	As of March 31, 2019
USD	2,678
Euro	962

The amount of decrease in profit before taxes assuming that the Japanese yen appreciated by ¥1 is the same amount.

Foreign currency translation adjustment is excluded.

(b) Management of interest rate risk

NTT Group pays interest incurred to procure funds that are necessary for working capital and capital investment to promote business activities. For such debts, the Group generally adopts a policy to fix future cash flows and borrows, mainly at fixed interest rates. If borrowings are made at a floating interest rate, the Group is exposed to the risk of fluctuations in future cash flows of interest, as interest is subject to fluctuations in market interest rates. Therefore, the Group has concluded interest rate swap contracts that pay or receive the difference of floating interest rate received and fixed interest paid, as well as interest rate currency swap contracts with financial institutions, in order to curb the increase in interest payments due to rising interest rates for long-term borrowings with floating interest rates. These instruments are executed with creditworthy financial institutions.

As a result, fluctuations in the market interest rates have little impact on NTT Group, and the interest rate risk is not significant to the Group.

Fair value hedges

Not applicable.

Cash flow hedges

<The date of transition to IFRS and the fiscal year ended March 31, 2018>

Notional principal of derivatives designated as cash flow hedges

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018
Forward exchange contracts	14,842	18,128
Interest rate swap agreements	157,232	144,096
Currency swap agreements	379,929	409,316

Changes in the fair value of derivatives designated as cash flow hedges recorded in “Other comprehensive income (loss)”

(Millions of yen)

	As of March 31, 2018
Forward exchange contracts	141
Interest rate swap agreements	1,537
Currency swap agreements	1,608
Total	3,286

Amounts and accounts of derivatives under cash flow hedges that are reclassified from “Accumulated other comprehensive income (loss)” to profit or loss for the fiscal year ended March 31, 2019

(Millions of yen)

	Accounts	As of March 31, 2018
Forward exchange contracts	Finance costs	(628)
Interest rate swap agreements	Finance costs	1,110
Currency swap agreements	Finance costs	13,594
Total		14,076

As of March 31, 2018, approximately ¥5,941 million of unrealized gain on derivative instruments recorded in “Accumulated other comprehensive income (loss)” is expected to be reclassified to profit within the next 12 months.

Derivatives to which hedge accounting is not applied

Notional principal of derivatives to which hedge accounting is not applied

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018
Forward exchange contracts	82,084	188,044
Interest rate swap agreements	34,145	14,345
Currency swap agreements	203,097	93,708
Currency option agreements	28,937	11,538

Changes in the fair value of derivatives recorded profit or loss to which hedge accounting is not applied

(Millions of yen)

	Accounts	As of March 31, 2018
Forward exchange contracts	Finance costs	(7,631)
Interest rate swap agreements	Finance costs	(33)
Currency swap agreements	Finance costs	(21,771)
Currency option agreements	Finance costs	493
Total		(28,942)

Contingent features in derivative instruments

As of March 31, 2018, NTT Group had no derivative instruments that contain credit risk-related contingent features, which would have a material adverse effect on the financial position and result of operations of the Group.

<Fiscal year ended March 31, 2019>

Derivative transactions and hedging for the fiscal year ended March 31, 2019 are as follows:

Notional principal and average price of major hedging instruments

Classification	Contents	Notional principal and average price	Within 1 year	Over 1 year and within 5 years	Over 5 years	Total
Cash flow hedges	Interest rate swaps to fix the floating interest rates (Note 1)	Notional principal (millions of yen)	2,834	66,513	51,411	120,758
	Foreign exchange contracts and forecast transactions of RMB	Notional principal (millions of RMB)	581	99	—	680
		Average price (JPY/RMB)	16.05	15.99	—	—
	Currency swaps and borrowings in USD (Note 2)	Notional principal (millions of USD)	830	2,170	1,081	4,081
		Average price (JPY/USD)	99.61	109.48	117.82	—

Notes:

1. The major condition of interest rates for interest rate swaps is floating interest rate receivable of Japanese Bankers Association TIBOR (three months and six months) to fixed interest rate payable of 0.5% to 3.9%.
2. The major condition of interest rates for currency swaps is floating interest rate receivable of LIBOR (three months and six months) to fixed interest rate payable of (0.3)% to 0.4%.

Derivatives designed as hedging instruments

(millions of yen)

	Notional principal	Carrying amount (millions of yen)		Line item in consolidated statement of financial position	Gain or loss on hedges recognized in the period in other comprehensive income (Note.1)	Amount reclassified from cash flow hedge reserve to profit or loss as reclassification adjustment (Note.1)	Major line item in consolidated statement of profit or loss for reclassification adjustment
		Asset	Liability				
Interest rate swaps	120,758	356	3,611	(Note.2)	(2,054)	593	Finance costs
Foreign exchanges	11,271	22	153	(Note.2)	(492)	174	Finance costs
Currency swaps	448,162	14,555	14,695	(Note.2)	31,980	(32,543)	Finance costs

Note

- 1: The amounts are presented before adjustment of tax effect.
- 2: “Other financial assets (current),” “Other financial assets (non-current),” “Other financial liabilities (current),” and “Other financial liabilities (non-current)”

Changes in amounts recorded in other components of equity in the consolidated statement of financial position related to cash flow hedge reserve

(Millions of yen)

	Cash flow hedge reserve		
	Interest rate swaps	Foreign exchanges	Currency swaps
Balance at the beginning of the current fiscal year	(899)	155	(2,974)
Cumulative effect of adoption of IFRS 9 “Financial Instruments”	(24)	(2,813)	(102)
Amount arising during the period	(1,389)	(1,419)	22,430
Reclassification adjustments to profit	412	121	(22,518)
Transfer to non-financial assets	—	3,905	—
Balance at the end of the current fiscal year	(1,900)	(51)	(3,164)

The main item of reclassification adjustments to profit is the transfer from other components of equity to profit or loss during the accounting period in which gain or loss on the hedged item is recognized.

Management of stock price fluctuation risk

As of March 31, 2019, NTT Group held approximately ¥338.7 billion of marketable shares (all on a fair value basis) mainly of customers and associates, bearing the risk of stock price fluctuations. The Group manages stock price fluctuation risk by regularly monitoring the fair value and unrealized gains and losses of each investee, based on a risk management strategy.

If the stock index had risen or fallen 10% as of March 31, 2019, total equity would have increased or decreased by about ¥24.1 billion.

(2) Fair Value of Financial Instruments

(i) The fair value of financial instruments not measured at fair value

The carrying amount and estimated fair value of financial instruments not measured at a fair value (excluding those whose fair value was not required to be disclosed under the previous accounting standards)

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)		As of March 31, 2018	
	Carrying amount	Fair value	Carrying amount	Fair value
Long-term borrowings (including current portion or balance due within 1 year)	3,862,878	3,966,128	3,576,157	3,641,945

With the exception of the above-mentioned items, the financial instruments not measured at fair value are not included in the table because their carrying amounts approximated their fair values.

The fair values of Long-term borrowings (including current portion or balance due within 1 year) are measured by discounting future cash flows using discount rates assumed for similar new debt, except for floating rate debt whose carrying amounts and fair values are deemed almost equivalent.

Carrying amount and estimated fair value of financial instruments not measured at fair value

(Millions of yen)

	As of March 31, 2019	
	Carrying amount	Fair value
Long-term borrowings (including current portion or balance due within 1 year)	3,371,759	3,436,096

With regard to the above-mentioned items, the assumptions (inputs) used to measure fair value defined in “Note 3. Significant Accounting Policies (5) Fair Value” are classified as Level 2. With the exception of the above-mentioned items, the financial instruments not measured at fair value are not included in the table, because their carrying amounts approximate their fair values. No changes have been made to the measurement method of fair value after the date of transition to IFRS and the end of the fiscal year ended March 31, 2018.

(ii) Fair value measurement

Assets and liabilities measured at fair value

Date of transition to IFRS (April 1, 2017)

(Millions of yen)

Classification	Fair Value			
	Level 1	Level 2	Level 3	Total
Available-for-sale securities:				
Domestic equity securities	198,482	–	–	198,482
Foreign equity securities	135,913	–	–	135,913
Domestic debt securities	214	58,759	165	59,138
Foreign debt securities	9	37,957	233	38,199
Derivatives:				
Forward exchange contracts	–	1,142	–	1,142
Interest rate swap agreements	–	297	–	297
Currency swap agreements	–	71,930	–	71,930
Total financial assets	334,618	170,085	398	505,101
Derivatives:				
Forward exchange contracts	–	1,399	–	1,399
Interest rate swap agreements	–	3,937	–	3,937
Currency swap agreements	–	12,555	–	12,555
Currency option agreements	–	1,336	–	1,336
Total financial liabilities	–	19,227	–	19,227

Classification	Fair value			
	Level 1	Level 2	Level 3	Total
Available-for-sale securities:				
Domestic equity securities	232,886	–	–	232,886
Foreign equity securities	116,313	–	–	116,313
Domestic debt securities	–	76,340	172	76,512
Foreign debt securities	97	40,210	–	40,307
Derivatives:				
Forward exchange contracts	–	675	–	675
Interest rate swap agreements	–	942	–	942
Currency swap agreements	–	6,721	–	6,721
Total financial assets	349,296	124,888	172	474,356
Derivatives:				
Forward exchange contracts	–	4,543	–	4,543
Interest rate swap agreements	–	3,079	–	3,079
Currency swap agreements	–	27,788	–	27,788
Currency option agreements	–	842	–	842
Total financial liabilities	–	36,252	–	36,252

1. In the fiscal year ended March 31, 2018, there was no material transfer between levels.
2. Reconciliation of Level 3 is not disclosed, as there were no material changes among financial instruments classified as Level 3 in the fiscal year ended March 31, 2018.
3. In addition to the above-mentioned financial instruments measured at fair value on a recurring basis, there were no material cost method investments (equity security) whose decline in value was deemed other than temporary, and the carrying amounts were written down to the fair values under U.S. GAAP.

Assets and liabilities measured at fair value

As of March 31, 2019

(Millions of yen)

Classification	Fair Value			
	Level 1	Level 2	Level 3	Total
Financial assets:				
Financial assets measured at fair value through profit or loss				
Debt securities	–	97,129	–	97,129
Investments in capital	–	942	33,525	34,467
Loans receivables	–	157,126	–	157,126
Derivatives financial assets				
Applied hedge accounting	–	14,935	–	14,935
Not applied hedge accounting	–	2,860	–	2,860
Financial assets measured at fair value through other comprehensive income				
Equity securities	338,748	1,675	70,194	410,617
Total	338,748	274,667	103,719	717,134
Financial liabilities:				
Financial liabilities measured at fair value through profit or loss				
Derivatives financial liabilities				
Applied hedge accounting	–	18,460	–	18,460
Not applied hedge accounting	–	1,164	–	1,164
Total	–	19,624	–	19,624

In the fiscal year ended March 31, 2019, there was no material transfer between levels.

Reconciliation of Level 3 assets and liabilities measured at fair value on a recurring basis in the fiscal year ended March 31, 2019

As of March 31, 2019

(Millions of yen)

Classification	Balance at the beginning of the year	Gain (losses)		Increase by purchases	Decrease by sales	Other changes	Balance at the end of the year	Gain (losses) for the period relating to assets held at the end of the year
		Profit	Other comprehensive income					Profit
Financial assets:								
Investments in capital	26,444	3,827	-	5,820	(2,206)	(360)	33,525	2,819
Equity securities	66,548	-	7,695	7,131	(8,386)	(2,794)	70,194	-

1. "Increase by purchases" and "Decrease by sales" include increases or decreases from new consolidations, deconsolidations, and transfers from (to) other accounts.
2. Gains or losses included in the "Profit" are included in the "Finance income" or "Finance costs" in the consolidated statement of profit or loss.

Valuation techniques used to measure fair value of financial instruments

In the consolidated statement of financial position, the valuation techniques used to measure fair value of financial instruments classified as Level 2 and Level 3 are as follows:

(i) Debt securities

Debt securities include corporate bonds and others. Their fair value is measured based on the pricing models developed independently by financial and other institutions using underlying conditions that are observable in markets, such as credit ratings and discount rates.

(ii) Loans receivables

The fair values of loans receivable are calculated primarily by discounting the total principal and interest using interest rates assumed for similar new transactions.

(iii) Derivatives

Derivatives mainly comprise forward exchange contracts, currency swap agreements and interest rate swap agreements. The fair value of forward exchange contracts is measured using underlying conditions that are observable in markets, such as exchange rates. The fair value of currency swap agreements and interest rate swap agreements is measured by using underlying conditions that are observable in markets, such as London Inter-bank Offered Rate (LIBOR), swap rates, and exchange rates, and by discounting future cash flows to present value.

(iv) Equity securities and investments in capital

The fair value of equity securities and investments in capital is measured using an evaluation model that is selected through appropriate processes and that suits the circumstances of the investee, including reasonable estimates of inputs. As a result, these fair values are primarily measured using the adjusted net asset method.

32. Major Subsidiaries

(1) Subsidiaries

The major subsidiaries of the Group are as described in “PART 1 INFORMATION ON THE COMPANY, ITEM 1 OVERVIEW OF THE COMPANY, 1. Status of Company, 4 Status of Affiliates.”

(2) Structured Entities

Size of non-consolidated structured entities, carrying amount of NTT Group’s investments in the entities, and the Group’s potential maximum loss exposure

		(Millions of yen)		
	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019	
Total asset of non-consolidated structured entities	62,354	86,152	86,663	
NTT Group’s maximum loss exposure	6,998	10,156	19,899	
Carrying amount of investments that NTT Group has recognized	6,998	10,156	19,899	
Commitment contracts for additional investment	—	—	—	

Supplemental information on non-consolidated structured entities

In the consolidated statement of financial position, NTT Group’s investments are included and presented in “Investments accounted for using the equity method” or “Other financial assets (non-current).” The Group has not recognized any liability for the non-consolidated structured entities.

The potential maximum loss exposure arising from the involvement with the structured entities is limited to the total of the carrying amount of NTT Group’s investment and the commitment for additional investment.

NTT Group’s maximum loss exposure shows the maximum amount of loss that may occur. It does not mean the amount of loss expected from engaging in the structured entities.

The Group has neither provided, nor intended to provide, financial or any other significant support to the above non-consolidated structured entities without contractual obligations.

(3) Condensed Consolidated Financial Information of Subsidiaries in which NTT Group has Significant Non-controlling Interests

Condensed consolidated financial information of subsidiaries in which NTT Group has significant non-controlling interests

NTT DOCOMO

General information

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019	
Share of interests held by non-controlling interests (%)	33.34	33.35	35.89	
Cumulative non-controlling interests in subsidiary groups (millions of yen)	1,830,594	1,889,313	1,927,958	

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Profit or loss allocated to non-controlling interests of subsidiary groups	263,742	238,176

Condensed consolidated financial information

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Current assets	2,737,538	3,016,843	2,922,859
Non-current assets	4,626,680	4,638,095	4,417,687
Current liabilities	1,421,047	1,646,956	1,626,647
Non-current liabilities	426,994	315,754	319,775
Equity	5,516,177	5,692,228	5,394,124

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Sales	4,762,267	4,840,849
Profit	792,456	664,851
Comprehensive income	804,218	657,332

The dividend paid from NTT DOCOMO to the non-controlling interests during the fiscal year ended March 31, 2019 amounted to ¥135,393 million (¥111,224 million for the fiscal year ended March 31, 2018).

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Net cash provided by (used in) operating activities	1,498,600	1,216,014
Net cash provided by (used in) investing activities	(705,532)	(296,469)
Net cash provided by (used in) financing activities	(690,768)	(1,090,052)
Effect of exchange rate changes on cash and cash equivalents	258	3
Net increase (decrease) in cash and cash equivalents	102,558	(170,504)

33. Related Parties

(1) Relationships and Transactions with the Government of Japan

The Government of Japan currently holds 35.91% of the issued shares of the Company. As a shareholder, the government holds the right to vote at the general meeting of shareholders of the Company, and as the largest shareholder, theoretically has the power to exercise a great influence over the decisions of the general meeting of shareholders. However, in its 1997 Diet statement, the government announced that it does not exercise shareholder rights to be actively involved in the management of the Company. In fact, the government has never exercised such authority to be directly involved in the Company's management in the past.

Transactions with the Group and various departments or organizations of the government are conducted as an independent customer based on arm's length prices. There are no individually significant transactions.

(2) Transactions with Related Parties

NTT Group is engaged in a variety of transactions with associates and jointly controlled entities, the most important of which are the purchase of terminal equipment and materials, and outsourcing of various services. Transactions with associates and jointly controlled entities are conducted based on arm's length prices.

Balances of receivables from and payables to associates and jointly controlled entities

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Balance of receivables			
Associates	19,666	21,481	23,994
Jointly controlled entities	12,498	8,124	14,875
Total	32,164	29,605	38,869
Balance of payables			
Associates	130,181	188,163	263,927
Jointly controlled entities	19,680	20,034	22,709
Total	149,861	208,197	286,636

Amount of transactions with associates and jointly controlled entities

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Operating revenues		
Associates	76,538	99,540
Jointly controlled entities	6,147	6,939
Total	82,685	106,479
Operating expenses		
Associates	108,949	136,376
Jointly controlled entities	40,620	40,564
Total	149,569	176,940

(3) Remuneration for Key Management

Remuneration for key management

(Millions of yen)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Monthly remuneration	448	466
Board member bonuses	101	112
Total	549	578

34. Purchase Commitments

On the date of transition to IFRS, as of March 31, 2018 and March 31, 2019, purchase commitments for property, plant and equipment, intangible assets, investment property and inventories amounted to ¥89,228 million, ¥123,654 million, and ¥77,280 million, respectively. These are mainly for unperformed contracts related to the purchase of telecommunications facilities and terminals.

35. Contingent Liabilities

As of March 31, 2019, contingent liabilities related to guaranteed debt and others stood at ¥66,513 million.

As of March 31, 2019, NTT Group had no outstanding lawsuits, disputes, and damages that have a significant impact on the financial position and results of operations.

36. Subsequent Events

The Company's repurchase of treasury stock

The Company's acquisition limit of treasury stock is described in "Note 26. Equity and Other Components of Equity (1) Issued Shares."

The subsidiaries' purchase of treasury stock

The acquisition limit of NTT DOCOMO's treasury stock is described in "Note 26. Equity and Other Components of Equity (7) Equity Transactions with Non-controlling Interests."

Sales of shares of associates

Sales of shares of Sumitomo Mitsui Card Company is described in "Note 10. Assets Held for Sale."

37. First-time Adoption of International Financial Reporting Standards (“IFRS”)

(1) Transition to Financial Reporting in Accordance with IFRS

NTT Group prepared the consolidated financial statements for the fiscal year ended March 31, 2019 as its first IFRS financial statements.

According to IFRS 1, an entity applying IFRS for the first time must apply it retrospectively. However, retrospective application is exceptionally prohibited for certain standards under IFRS 1, for which IFRS is applied prospectively from the date of transition to IFRS. Additionally, certain exemptions under IFRS 1 may be voluntarily applied to a part of the standards required to be applied under IFRS. The effect of applying these provisions has been recognized at the IFRS transition date in retained earnings or “Other components of equity.”

The major voluntary exemptions stipulated in IFRS 1 and applied by NTT Group are described below.

(i) Business combinations

NTT Group has not applied IFRS 3 retrospectively to business combinations that arose before April 1, 2002. Goodwill resulting from business combinations that arose before April 1, 2002 has been recognized at the carrying amount based on U.S. GAAP. For goodwill generated in business combinations that occurred before the date of transition to IFRS, impairment testing was implemented as of the date of transition to IFRS, regardless of whether there was any indication of impairment.

(ii) Deemed cost

For certain items of property, plant and equipment and investment property, NTT Group uses the fair value as of the date of transition to IFRS as deemed cost, which is a surrogate for cost at that date.

(iii) Operating revenues

NTT Group has retrospectively applied IFRS 15 using the practical expedient set out in (d) under paragraph C5 of IFRS 15. In accordance with the provisions of the standard, information related to the date of transition to IFRS and the fiscal year ended March 31, 2018 is omitted for the amounts of consideration for goods or services to be provided from the next fiscal year and the explanation of when these amounts are expected to be recognized as revenue.

(iv) Exemptions from restatement of comparative information in the application of IFRS 9

At the date of transition to IFRS and for the fiscal year ended March 31, 2018, items included within the scope of application of IFRS 9 have been restated in accordance with IFRS 9. These are recognized and measured in accordance with the previous accounting standards (U.S. GAAP).

(2) Reconciliations from U.S. GAAP to IFRS

Upon transition to IFRS, NTT Group has adjusted the amounts in the consolidated financial statements that were prepared based on U.S. GAAP. The impact of transition from U.S. GAAP to IFRS on the Group’s financial position, results of operations, and cash flows is explained in the following reconciliation tables and the notes to these tables.

In the reconciliation tables, “Reclassification” shows those items that have no impact on equity and comprehensive income, and “Recognition and measurement difference” shows those items that have an impact on equity and comprehensive income.

Reconciliation of equity at the date of transition to IFRS (April 1, 2017)

Consolidated statement of financial position

(Millions of yen)

Line item under U.S. GAAP	U.S. GAAP	Reclassification	Recognition and measurement difference	IFRS	Line item under IFRS
Assets				Assets	
Current assets				Current assets	
Cash and cash equivalents	925,213	172,176	(21,616)	1,075,773	Cash and cash equivalents
Short-term investments	63,844	103,734	(168)	167,410	Other financial assets
Notes and accounts receivable, trade	2,699,708	932,534	(8,665)	3,623,577	Trade and other receivables
Allowance for doubtful accounts	(48,626)	48,626	—	—	
Accounts receivable, other	505,145	(505,145)	—	—	
Inventories	365,379	(7,767)	(30,894)	326,718	Inventories
Prepaid expenses and other current assets	573,170	(208,786)	19,122	383,506	Other current assets
Deferred tax assets	228,590	(228,590)	—	—	
Total current assets	5,312,423	306,782	(42,221)	5,576,984	Total current assets
Property, plant and equipment				Non-current assets	
Telecommunications equipment	11,046,115	—	—	—	
Telecommunications service lines	16,064,732	—	—	—	
Buildings and structures	6,147,869	—	—	—	
Machinery, vessels and tools	2,032,389	—	—	—	
Land	1,292,685	—	—	—	
Construction in progress	421,819	—	—	—	
Accumulated depreciation	(27,286,588)	—	—	—	
Total property, plant and equipment	9,719,021	(989,364)	(9,902)	8,719,755	Property, plant and equipment
	—	1,032,675	(40,358)	992,317	Investment property
Investments and other assets				Investments accounted for using the equity method	
Investments in affiliated companies	484,596	—	44,385	528,981	Investments accounted for using the equity method
Marketable securities and other investments	495,290	517,251	(1,995)	1,010,546	Other financial assets
Goodwill	1,314,645	—	(433,353)	881,292	Goodwill
Software	1,209,485	(1,209,485)	—	—	
Other intangible assets	453,918	1,188,084	(32,404)	1,609,598	Intangible assets
Other assets	1,492,076	(887,552)	56,447	660,971	Other non-current assets
Deferred tax assets	768,871	228,590	245,822	1,243,283	Deferred tax assets
Total investments and other assets	6,218,881	—	—	—	
	15,937,902	(119,801)	(171,358)	15,646,743	Total non-current assets
Total assets	21,250,325	186,981	(213,579)	21,223,727	Total assets

(Millions of yen)

Line item under U.S. GAAP	U.S. GAAP	Reclassifi- cation	Recognition and measure-ment difference	IFRS	Line item under IFRS
Liabilities and Equity					Liabilities and Equity
Current liabilities					Current liabilities
Short-term borrowings	227,207	864,726	(12,690)	1,079,243	Short-term borrowings
Current portion of long-term debt	681,904	(681,904)	—	—	
Accounts payable, trade	1,612,996	181,994	2,554	1,797,544	Trade and other payables
Current portion of obligations under capital leases	14,430	9,527	21,770	45,727	Other financial liabilities
Accrued payroll	443,308	16,147	(9,095)	450,360	Accrued payroll
Accrued taxes on income	239,755	(367)	(5,571)	233,817	Income taxes payable
Accrued consumption tax	75,083	(75,083)	—	—	
Advances received	324,342	(324,342)	—	—	
Other current liabilities	512,368	174,131	272,363	958,862	Other current liabilities
Total current liabilities	4,131,393	164,829	269,331	4,565,553	Total current liabilities
Long-term liabilities					Non-current liabilities
Long-term debt	3,168,478	—	11,167	3,179,645	Long-term debt
Obligations under capital leases	25,568	116,770	59,451	201,789	Other financial liabilities
Liability for employees' retirement benefits	1,599,381	—	277,464	1,876,845	Defined benefit liabilities
Accrued liabilities for point programs	103,047	(103,047)	—	—	
Deferred tax liabilities	166,751	7,285	(74,998)	99,038	Deferred tax liabilities
Other	497,132	1,144	(239,848)	258,428	Other non-current liabilities
Total long-term liabilities	5,560,357	22,152	33,236	5,615,745	Total non-current liabilities
Total liabilities	9,691,750	186,981	302,567	10,181,298	Total liabilities
Redeemable non-controlling interests	50,819	—	(50,819)	—	
Equity					Equity
Nippon Telegraph and Telephone Corporation ("NTT") shareholders' equity					Nippon Telegraph and Telephone Corporation ("NTT") shareholders' equity
Common stock	937,950	—	—	937,950	Common stock
Additional paid-in capital	2,862,035	—	(451,463)	2,410,572	Additional paid-in capital
Retained earnings	5,626,155	—	(157,910)	5,468,245	Retained earnings
Accumulated other comprehensive income (loss)	1,562	—	177,891	179,453	Other components of equity
Treasury stock	(375,223)	—	—	(375,223)	Treasury stock
Total NTT shareholders' equity	9,052,479	—	(431,482)	8,620,997	Total NTT shareholders' equity
Non-controlling interests	2,455,277	—	(33,845)	2,421,432	Non-controlling interests
Total equity	11,507,756	—	(465,327)	11,042,429	Total equity
Total liabilities and equity	21,250,325	186,981	(213,579)	21,223,727	Total liabilities and equity

Reconciliation of equity as of March 31, 2018

Consolidated statement of financial position

(Millions of yen)

Line item under U.S. GAAP	U.S. GAAP	Reclassification	Recognition and measurement difference	IFRS	Line item under IFRS
Assets			Assets		
Current assets			Current assets		
Cash and cash equivalents	780,300	129,032	(14,329)	895,003	Cash and cash equivalents
Short-term investment	31,641	93,525	(1,822)	123,344	Other financial assets
Notes and accounts receivable, trade	2,976,467	1,055,447	(9,687)	4,022,227	Trade and other receivables
Allowance for doubtful accounts	(52,332)	52,332	—	—	
Accounts receivable, other	662,190	(662,190)	—	—	
Inventories	393,582	(6,550)	(32,851)	354,181	Inventories
Prepaid expenses and other current assets	575,704	(106,416)	5,117	474,405	Other current assets
Total current assets	5,367,552	555,180	(53,572)	5,869,160	Total current assets
Property, plant and equipment			Non-current assets		
Telecommunications equipment	10,917,851	—	—	—	
Telecommunications service lines	14,217,566	—	—	—	
Buildings and structures	6,280,584	—	—	—	
Machinery, vessels and tools	2,127,201	—	—	—	
Land	1,307,985	—	—	—	
Construction in progress	438,604	—	—	—	
Accumulated depreciation	(25,468,698)	—	—	—	
Total property, plant and equipment	9,821,093	(1,009,723)	804	8,812,174	Property, plant and equipment
	—	1,040,512	(38,211)	1,002,301	Investment property
Investments and other assets			Investments accounted for using the equity method		
Investments in affiliated companies	502,936	—	36,406	539,342	Investments accounted for using the equity method
Marketable securities and other investments	525,170	546,481	(2,852)	1,068,799	Other financial assets
Goodwill	1,329,275	—	(487,992)	841,283	Goodwill
Software	1,223,985	(1,223,985)	—	—	
Other intangible assets	394,489	1,201,689	(6,730)	1,589,448	Intangible assets
Other assets	1,590,636	(957,959)	12,314	644,991	Other non-current assets
Deferred tax assets	920,634	—	253,312	1,173,946	Deferred tax assets
Total investments and other assets	6,487,125	—	—	—	
	16,308,218	(402,985)	(232,949)	15,672,284	Total non-current assets
Total assets	21,675,770	152,195	(286,521)	21,541,444	Total assets

(Millions of yen)

Line item under U.S. GAAP	U.S. GAAP	Reclassifi- cation	Recognition and measure- ment difference	IFRS	Line item under IFRS
Liabilities and Equity					Liabilities and Equity
Current liabilities					Current liabilities
Short-term borrowings	270,743	765,246	(18,245)	1,017,744	Short-term borrowings
Current portion of long-term debt	624,385	(624,385)	—	—	
Accounts payable, trade	1,613,516	191,794	6,413	1,811,723	Trade and other payables
Current portion of obligations under capital leases	12,567	11,993	26,151	50,711	Other financial liabilities
Accrued payroll	460,357	—	(5,350)	455,007	Accrued payroll
Accrued taxes on income	245,326	—	(4,656)	240,670	Income taxes payable
Accrued consumption tax	88,420	(88,420)	—	—	
Advances received	374,444	(374,444)	—	—	
Other	549,263	237,300	260,019	1,046,582	Other current liabilities
Total current liabilities	4,239,021	119,084	264,332	4,622,437	Total current liabilities
Long-term liabilities					Non-current liabilities
Long-term debt	2,947,945	—	5,910	2,953,855	Long-term debt
Obligations under capital leases	22,587	135,889	31,880	190,356	Other financial liabilities
Liability for employees' retirement benefits	1,619,907	—	240,617	1,860,524	Defined benefit liabilities
Accrued liabilities for point programs	105,037	(105,037)	—	—	
Deferred tax liabilities	128,833	—	(54,738)	74,095	Deferred tax liabilities
Other	529,959	2,259	(257,695)	274,523	Other non-current liabilities
Total long-term liabilities	5,354,268	33,111	(34,026)	5,353,353	Total non-current liabilities
Total liabilities	9,593,289	152,195	230,306	9,975,790	Total liabilities
Redeemable non-controlling interests	49,930	—	(49,930)	—	
Equity					Equity
Nippon Telegraph and Telephone Corporation ("NTT") shareholders' equity					Nippon Telegraph and Telephone Corporation ("NTT") shareholders' equity
Common stock	937,950	—	—	937,950	Common stock
Additional paid-in capital	2,853,613	—	(457,058)	2,396,555	Additional paid-in capital
Retained earnings	6,260,631	—	(134,674)	6,125,957	Retained earnings
Accumulated other comprehensive income (loss)	44,529	—	156,109	200,638	Other components of equity
Treasury stock	(610,742)	—	—	(610,742)	Treasury stock
Total NTT shareholders' equity	9,485,981	—	(435,623)	9,050,358	Total NTT shareholders' equity
Non-controlling interests	2,546,570	—	(31,274)	2,515,296	Non-controlling interests
Total equity	12,032,551	—	(466,897)	11,565,654	Total equity
Total liabilities and equity	21,675,770	152,195	(286,521)	21,541,444	Total liabilities and equity

Reconciliation of comprehensive income for the fiscal year ended March 31, 2018 (April 1, 2017 to March 31, 2018)

Consolidated statement of profit or loss

(Millions of yen)

Line item under U.S. GAAP	U.S. GAAP	Reclassification	Recognition and measurement difference	IFRS	Line item under IFRS
Operating revenues					Operating revenues
Fixed voice-related services	1,146,901	—	—	—	
Mobile voice-related services	942,183	—	—	—	
IP/packet communications services	3,801,771	—	—	—	
Revenues from the sale of telecommunications equipment	843,548	—	—	—	
System integration	3,443,147	—	—	—	
Other	1,622,037	—	—	—	
Total operating revenues	11,799,587	(7,813)	(9,626)	11,782,148	
Operating expenses					Operating expenses
Cost of services	2,348,541	(2,348,541)	—	—	
Cost of equipment sold	915,540	(915,540)	—	—	
Cost of system integration	2,471,347	(2,471,347)	—	—	
Depreciation and amortization	1,339,423	(1,339,423)	—	—	
Impairment losses					Impairment losses
Goodwill	18,864	—	15,255	34,119	Goodwill
Metal cable related	124,800	—	—	124,800	Metal cable -related
Other	18,505	—	445	18,950	Other
Selling, general and administrative expenses	2,919,724	(2,919,724)	—	—	
	—	2,408,321	(14,963)	2,393,358	Personnel expenses
	—	5,828,968	4,898	5,833,866	Expenses for purchase of goods and services and other expenses
	—	1,339,423	7,508	1,346,931	Depreciation and amortization
	—	153,656	505	154,161	Loss on disposal of property, plant and equipment and intangible assets
	—	237,269	(2,392)	234,877	Taxes and dues
Total operating expenses	10,156,744	(26,938)	11,256	10,141,062	Total operating expenses
Operating profit	1,642,843	19,125	(20,882)	1,641,086	Operating profit

(Millions of yen)

Line item under U.S. GAAP	U.S. GAAP	Reclassifi- cation	Recognition and measure-ment difference	IFRS	Line item under IFRS
Non-operating income (expenses)					
Interest and amortization of bond discounts and issue costs	32,188	63,283	1,712	97,183	Finance costs
Interest income	19,094	22,387	2,483	43,964	Finance income
Income from arbitration award	147,646	—	—	147,646	Income from arbitration award
Other, net	(21,771)	21,771	—	—	
	—	5,551	(585)	4,966	Share of profit (loss) of entities accounted for using the equity method
Total non-operating income (expenses)	112,781	—	—	—	
Income before income taxes and equity in earnings (losses) of affiliated companies	1,755,624	5,551	(20,696)	1,740,479	Profit (loss) before taxes
Income tax expense (benefit)	541,864	—	(8,084)	533,780	Income taxes
Current	532,525	—	—	—	
Deferred	9,339	—	—	—	
Income before equity in earnings (losses) of affiliated companies	1,213,760	—	—	—	
Equity in earnings (losses) of affiliated companies	5,551	(5,551)	—	—	
Net income	1,219,311	—	(12,612)	1,206,699	Profit
					Profit attributable to:
NTT	909,695	—	(11,808)	897,887	NTT
Non-controlling interests	309,616	—	(804)	308,812	Non-controlling interests

Consolidated statement of comprehensive income

(Millions of yen)

Line item under U.S. GAAP	U.S. GAAP	Reclassifi- cation	Recognition and measure-ment difference	IFRS	Line item under IFRS
Net income	1,219,311	—	(12,612)	1,206,699	Profit
Other comprehensive income (loss), net of tax					Other comprehensive income (net of taxes)
					Items that will not be reclassified to profit or loss
	—	—	(432)	(432)	Share of other comprehensive income of entities accounted for using the equity method
Pension liability adjustments	23,712	—	8,998	32,710	Remeasurements of the defined benefit plans
	—	—	—	32,278	Total of items that will not be reclassified to profit or loss
					Items that may be reclassified subsequently to profit or loss
Unrealized gain (loss) on securities	25,720	—	(10,118)	15,602	Unrealized gains (losses) on securities
Unrealized gain (loss) on derivative instruments	1,982	—	275	2,257	Cash flow hedge
Foreign currency translation adjustments	9,419	—	(32,517)	(23,098)	Foreign currency translation adjustments
	—	—	41,258	41,258	Share of other comprehensive income of entities accounted for using the equity method
	—	—	—	36,019	Total of items that may be reclassified subsequently to profit or loss
Total other comprehensive income (loss)	60,833	—	7,464	68,297	Total other comprehensive income (net of taxes)
Total comprehensive income (loss)	1,280,144	—	(5,148)	1,274,996	Total comprehensive income
					Comprehensive income attributable to:
NTT	956,013	—	(5,711)	950,302	NTT
Non-controlling interests	324,131	—	563	324,694	Non-controlling interests

(3) Notes on Adjustments to Equity and Comprehensive Income

(i) Impairment on non-financial assets

As the methods of implementing impairment tests for goodwill differ between U.S. GAAP and IFRS, a difference emerges in the amounts recognized as impairment losses. The main difference is the implementation unit of impairment tests.

Under U.S. GAAP, impairment tests for goodwill are required to be performed for each reporting unit (business segment or the constituent unit one level lower than business segments), whereas under IFRS impairment tests are required to be conducted for each cash-generating unit or group of cash-generating units. When transitioning to IFRS, NTT Group divided certain reporting units into several cash-generating units.

For goodwill, an impairment test was implemented as of the date of transition to IFRS, regardless of whether there was any indication of impairment. As a result, impairment losses were recognized for cash-generating units of System Integration-MEA and Internet Solutions of Dimension Data belonging mainly to the Long distance and international communications business segment. All impairment losses were ¥26,231 million and allocated to goodwill. The recoverable amounts of these cash-generating units are fair value less costs of disposal, which are measured by the discount cash flow method and the guideline public company method using unobservable inputs. The assumptions (inputs) used to measure fair value defined in “Note 3. Significant Accounting Policies (5) Fair Value” are classified as Level 3.

The impact of this change is as follows.

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018
(Millions of yen)		
(Consolidated statement of financial position)		
Goodwill	(74,972)	(88,019)
Other components of equity	1,454	(683)
Non-controlling interests	18,815	21,612
Adjustments to retained earnings	(54,703)	(67,090)

	Fiscal year ended March 31, 2018
(Millions of yen)	
(Consolidated statement of profit or loss)	
Impairment losses	(15,360)
Adjustments to profit or loss before taxes	(15,360)

Impairment losses, recoverable amounts, and main assumptions used to estimate the recoverable amounts

Cash-generating unit	System Integration- MEA of Dimension Data	Internet Solutions of Dimension Data
Recoverable amount (millions of yen)	34,330	39,715
Permanent growth rate (%)	2.5	—
Weighted average cost of capital (%)	13.7	—
EBITDA multiple (times)	—	6.0
Measurement method of recoverable amount	The fair value less costs of disposal, Discounted cash flow method	The fair value less costs of disposal, the guideline public company method

(ii) Capitalization of development expenses

Of the research and development expenditures that were recorded as expenses under U.S. GAAP, part of the development expenses meet the capitalization requirements under IFRS. These are recognized as assets in the consolidated statement of financial position and amortized using the straight-line method over the estimated useful lives.

The impact of this change is as follows.

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018
(Consolidated statement of financial position)		
Property, plant and equipment	15,998	19,448
Intangible assets	1,985	3,069
Deferred tax liabilities	(5,605)	(7,011)
Other components of equity	39	11
Non-controlling interests	(697)	(1,007)
Adjustments to retained earnings	11,720	14,510

(Millions of yen)

	Fiscal year ended March 31, 2018
(Consolidated statement of profit or loss)	
Expenses for purchase of goods and services and other expenses	10,237
Depreciation and amortization	(5,529)
Loss on disposal of property, plant and equipment and intangible assets	(241)
Adjustments to profit or loss before taxes	4,467

(iii) Deemed cost

In applying IFRS, NTT Group has applied the exemptions stipulated in IFRS 1, and used the fair value of certain property, plant and equipment and investment property as of the date of transition to IFRS as their deemed cost.

At the date of transition to IFRS, the previous carrying amount and the fair value of “property, plant and equipment” and “investment property” using the deemed cost stood at ¥525,178 million and ¥413,281 million, respectively.

As a result of the above, at the date of transition to IFRS, “property, plant and equipment” and “investment property” decreased by ¥66,353 million and ¥45,544 million, respectively. The net difference of this adjustment, after deducting the ¥34,789 million adjustment for deferred taxes, is included in “retained earnings” for ¥55,450 million and “non-controlling interests” for ¥21,658 million.

(iv) Revenues

With regard to costs incurred to provide communications services in the Mobile communications business, Regional communications business, Long distance and international communications business, and sales commissions and other charges were previously capitalized and amortized over the estimated average period of the subscription term under U.S. GAAP, up to the amount of income from non-recurring upfront fees such as installation fees and activation fees. However, under IFRS, because the full amount of these costs will be capitalized regardless of the upper limit of non-recurring upfront fees, part of the sales commissions and other charges that were previously accounted for as expenses will be additionally recognized as assets. In addition, an allowance was recognized for points earned by customers depending on their service usage under U.S. GAAP. However, under IFRS, part of the transaction consideration is recognized as contract liabilities when the points are granted, and revenue is recognized when the points are used.

In the Mobile communications business, income from non-recurring upfront fees, such as activation fees, is deferred. These were recognized as revenues by type of service over the average expected period of subscription under U.S. GAAP. Under IFRS, these will be recognized over the period of providing the “Monthly Support” service.

As for contracts for which it is difficult to make a reasonable estimate on the progress of the construction work, revenue is recognized upon completion of the contract services under U.S. GAAP. On the other hand, under IFRS, revenue is recognized within the range of the costs incurred.

The impact of these changes is as follows.

	Date of Transition to IFRS (April 1, 2017)	As of March 31, 2018
(Millions of yen)		
<hr/>		
(Consolidated statement of financial position)		
Trade and other receivables	7	234
Inventories	(24,820)	(27,363)
Other current assets	6,844	4,784
Property, plant and equipment	–	(102)
Deferred tax assets	(55,776)	(46,542)
Other non-current assets	105,517	61,940
Trade and other payables	–	(908)
Other current liabilities	(123,295)	(128,301)
Other non-current liabilities	212,543	236,783
Non-controlling interests	(47,908)	(46,491)
Adjustments to retained earnings	73,112	54,034

	Fiscal year ended March 31, 2018
(Millions of yen)	
<hr/>	
(Consolidated statement of profit or loss)	
Operating revenues	(32,357)
Personnel expenses	(5,473)
Expenses for purchase of goods and services and other expenses	10,202
Depreciation and amortization	(1,841)
Loss on disposal of property, plant and equipment and intangible assets	(260)
Taxes and dues	(1)
Adjustments to profit or loss before taxes	(29,730)

(v) Employee benefits

Under U.S. GAAP, service cost, interest cost, and expected return on plan assets associated with post-retirement benefits under the defined benefit plans were recognized in profit or loss. Of the actuarial gains or losses and prior service cost arising from the defined benefit plans, those that were not recognized as components of retirement benefit expenses for the current period are recognized as “Other components of equity” and subsequently recognized in profit or loss over a certain future period.

On the other hand, under IFRS, current service cost and past service cost under the defined benefit plans are recognized in profit or loss, while interest cost is recognized in profit or loss at an amount calculated by multiplying the net defined benefit liabilities and assets by discount rates. Remeasurements of the net defined benefit liabilities and assets, such as actuarial gains or losses, are recognized in other comprehensive income, which, when incurred, is transferred directly from “other components of equity” to retained earnings, without being recognized in profit or loss.

NTT Special Accounting Fund for the NTT CDBP is a public welfare pension plan and is considered a multi-employer plan. Therefore, contributions to the fund are recognized as expenses under U.S. GAAP. On the other hand, under IFRS, although the scheme is a public welfare pension scheme, it is considered a defined benefit plan. Accordingly, the defined benefit obligations are recognized at present value in the consolidated statement of financial position as “defined benefit liabilities.”

The impact of these changes is as follows.

(Millions of yen)

	Date of Transition to IFRS (April 1, 2017)	As of March 31, 2018
(Consolidated statement of financial position)		
Deferred tax assets	78,628	67,643
Other non-current assets	153	(453)
Defined benefit liabilities	(277,371)	(241,746)
Other components of equity	(197,121)	(175,688)
Non-controlling interests	(2,698)	(4,169)
Adjustments to retained earnings	(398,409)	(354,413)

(Millions of yen)

	Fiscal year ended March 31, 2018
(Consolidated statement of profit or loss)	
Personnel expenses	20,746
Expenses for purchase of goods and services and other expenses	741
Adjustments to profit or loss before taxes	21,487

(vi) Levies

Under U.S. GAAP, levies payable such as real estate taxes are were expensed over the relevant accounting periods. Under IFRS, however, these are recognized as an expense in its entirety at the time when payment obligation arises.

The impact of this changes are as follows.

(Millions of yen)

	Date of Transition to IFRS (April 1, 2017)	As of March 31, 2018
<hr/> (Consolidated statement of financial position)		
Inventories	160	136
Deferred tax assets	41,563	40,505
Other current liabilities	(132,099)	(129,663)
Trade and other payables	(398)	(398)
Non-controlling interests	10,874	10,830
Adjustments to retained earnings	(79,900)	(78,590)

(Millions of yen)

	Fiscal year ended March 31, 2018
<hr/> (Consolidated statement of profit or loss)	
Taxes and dues	2,413
Adjustments to profit or loss before taxes	2,413

(vii) Business combinations

Under U.S. GAAP, with regard to the acquisition of non-controlling interests in subsidiaries that occurred before March 31, 2009, the cost was allocated to identifiable assets acquired and liabilities assumed, which were measured based on an estimated fair value, with the excess of the cost over the net assets acquired recognized as “goodwill.” With regard to individual investments acquired in stages, the accounting method described above is applied, and the cumulative amount of the costs is then reflected. Under IFRS, changes in the parent’s ownership interest in a subsidiary that do not result in a loss of the parent’s control over the subsidiary are accounted for as capital transactions. Individual investments acquired in stages are remeasured at a fair value on the acquisition date when the parent acquires control over the subsidiary.

In addition, under U.S. GAAP, the non-controlling interest in the acquired company is measured at a fair value at the time of business combination. On the other hand, under IFRS, the non-controlling interest in the acquired company at the time of business combination can be measured, for each business combination transaction, at fair value or by proportional share in the acquired company’s identifiable net assets.

The impact of these changes is as follows.

(Millions of yen)

	Date of Transition to IFRS (April 1, 2017)	As of March 31, 2018
(Consolidated statement of financial position)		
Property, plant and equipment	35,958	35,343
Investments accounted for using the equity method	34,133	30,448
Goodwill	(384,201)	(384,584)
Intangible assets	(5,182)	(3,151)
Deferred tax assets	2,497	4,210
Deferred tax liabilities	1,734	1,099
Additional paid-in capital	260,796	266,166
Other components of equity	25,466	26,050
Non-controlling interests	70,932	68,029
Adjustments to retained earnings	42,133	43,610

(Millions of yen)

	Fiscal year ended March 31, 2018
(Consolidated statement of profit or loss)	
Expenses for purchase of goods and services and other expenses	12
Depreciation and amortization	1,404
Share of profit (loss) of entities accounted for using the equity method	(2,697)
Adjustments to profit or loss before taxes	(1,281)

(viii) Income taxes

Under U.S. GAAP, with regard to taxable temporary differences pertaining to investments in domestic subsidiaries, the tax law provides a means by which the reported amount of the investment can be recovered free of tax. Except for the cases where the Company expects to ultimately use the means, deferred tax liabilities are recognized. On the other hand, under IFRS, when it is probable that the temporary differences will not be reversed in a foreseeable future, deferred tax liabilities for taxable temporary differences pertaining to investments in subsidiaries are not recognized.

In addition, under U.S. GAAP, deferred tax liabilities recognized for taxable temporary differences pertaining to investments in affiliates are measured based on the amount of future reversal of the taxable temporary differences resulting from the sale of investments. On the other hand, under IFRS, the deferred tax liabilities recognized for future taxable temporary differences pertaining to investments in affiliates are measured based on the most probable amount of future reversal, such as the distribution of dividends.

The impact of these changes is as follows. The impact on consolidated statements of profit or loss is immaterial and omitted.

(Millions of yen)

	Date of Transition to IFRS (April 1, 2017)	As of March 31, 2018
(Consolidated statement of financial position)		
Deferred tax liabilities	209,210	195,476
Additional paid-in capital	130,046	152,648
Other components of equity	(6,995)	(9,480)
Non-controlling interests	(9,539)	(11,409)
Adjustments to retained earnings	322,722	327,235

(ix) Put options granted to non-controlling interests

With regard to short put options on subsidiary shares granted to the holders of certain non-controlling interests, redemption of the non-controlling interests is not solely in the control of NTT Group. Under U.S. GAAP, the estimated redemption amount was recorded as “Redeemable non-controlling interests” and presented in between liabilities and equity in the consolidated balance sheets. Changes in the estimated redemption amount were reflected to “retained earnings.”

On the other hand, under IFRS, the present value of the redemption amount of these options is, in principle, initially recognized as “other financial liabilities,” and an equivalent amount is deducted from an additional paid-in capital. These are subsequently measured at an amortized cost using the effective interest rate method, with the subsequent changes recognized as additional paid-in capital.

The impact of this change is as follows.

(Millions of yen)

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018
(Consolidated statement of financial position)		
Redeemable non-controlling interests	50,819	49,930
Other financial liabilities (current)	(21,906)	(26,343)
Other financial liabilities (non-current)	(57,724)	(28,775)
Non-controlling interests	(32,222)	(27,044)
Retained earnings	—	(4,778)
Adjustments to additional paid-in capital	(61,033)	(37,010)

The main adjustments to equity and comprehensive income other than (i) to (ix) above are as follows.

Under U.S. GAAP, when the fiscal year-end date of a subsidiary or an investment accounted for using the equity method differs from that of the parent company, material events or transactions occurring during the period of the different year-end dates are disclosed in the notes or adjusted in the consolidated financial statements.

Under IFRS, when the fiscal year-end date of a subsidiary or an associate and joint venture differs from that of the parent company, the fiscal year-end date is unified, or additional financial statements are prepared as of the parent company's fiscal year-end date, unless impractical. If unifying the fiscal year-end dates or preparing additional financial statements is impractical, an adjustment is made for the material events or transactions occurring during the period of the different year-end dates.

The impact of this change is as follows.

	Date of transition to IFRS (April 1, 2017)	As of March 31, 2018
(Millions of yen)		
<hr/>		
(Consolidated statement of financial position)		
Retained earnings	(687)	(1,816)
Other components of equity	(9,118)	(12,183)
Non-controlling interests	(2,464)	(1,185)

(4) Note on Changes in Presentation of Consolidated Statement of Financial Position and Consolidated Statement of Profit or Loss

(i) Presentation of deferred tax assets and deferred tax liabilities

Under U.S. GAAP, “deferred tax assets” and “deferred tax liabilities” at the date of transition to IFRS (April 1, 2017) are presented as current assets and current liabilities, and non-current assets and non-current liabilities. Under IFRS, all deferred tax assets and deferred tax liabilities are presented as non-current assets and non-current liabilities. At the end of the fiscal year ended March 31, 2018, there was no difference in this presentation requirement between U.S. GAAP and IFRS.

(ii) Classification of financial assets and financial liabilities

Under IFRS, “other financial assets” and “other financial liabilities” are presented separately, based on the requirements of presentation.

(iii) Offsetting of financial assets and financial liabilities

Under U.S. GAAP, financial assets are offset against financial liabilities for presentation provided that certain requirements are met, even if the right to offset is conditional. On the other hand, under IFRS, financial assets are not offset against financial liabilities, except when an unconditional and legally enforceable right to offset exists at the end of the reporting period, and the Group aims to either settle on a net basis or realize the asset and settle the liability simultaneously.

(iv) Presentation of operating expenses

Under U.S. GAAP, operating expenses are presented using the function of expense method, whereby expenses are classified as cost of sales, selling expenses, and other categories of expenses based on their function. Under IFRS, expenses are presented using the nature of expense method, whereby expenses are classified as “personnel expenses,” “expenses for purchase of goods and services and other expenses,” “depreciation and amortization,” and other categories of expenses based on their nature.

(5) Adjustments to Consolidated Statement of Cash Flows

The impact of the change from U.S. GAAP to IFRS in the consolidated statement of cash flows is as follows.

(Millions of yen)

	Fiscal year ended March 31, 2018
(Consolidated statement of cash flows)	
Net cash provided by (used in) operating activities	(96,277)
Net cash provided by (used in) investing activities	95,592
Net cash provided by (used in) financing activities	(36,621)

The key adjustments are the following two points:

(i) Under U.S. GAAP, cash flows related to loans and the collection of loans are recorded under cash flows from investing activities. Under IFRS, however, cash flows related to loans and collection of loans that are related to principal operating activities are recorded under cash flows from operating activities. The impact of this change is as follows.

(Millions of yen)

	Fiscal year ended March 31, 2018
(Consolidated statement of cash flows)	
Net cash provided by (used in) operating activities	(47,544)
Net cash provided by (used in) investing activities	47,544

(ii) Under IFRS, in connection with the change in the consolidated statement of financial position described in (4) (iii) above, Short-term borrowings, and cash and cash equivalents, for which offsetting presentation is not permitted are presented. The impact of this change is as follows.

(Millions of yen)

	Fiscal year ended March 31, 2018
(Consolidated statement of cash flows)	
Net cash provided by (used in) financing activities	(43,105)

(2) Other

Quarterly Information, etc. for the current fiscal year

Cumulative period	Three months ended June 30, 2018	Six months ended September 30, 2018	Nine months ended December 31, 2018	Fiscal year ended March 31, 2019
Operating revenue (Millions of yen)	2,852,732	5,793,199	8,795,215	11,879,842
Profit before taxes (current period) (Millions of yen)	542,651	1,078,318	1,530,421	1,671,861
Quarterly (current period) profit attributable to NTT (Millions of yen)	289,746	559,726	792,127	854,561
Quarterly (current period) basic earnings attributable to NTT per share (yen)	148.05	286.50	406.50	440.25

(Accounting period)	Q1	Q2	Q3	Q4
Quarterly basic earnings attributable to NTT per share (yen)	148.05	138.43	119.88	32.55

ITEM 6. STOCK-RELATED ADMINISTRATION FOR THE COMPANY

Fiscal year	From April 1 to March 31
Annual General Meeting of Shareholders	During June
Record Date	March 31
Record Date for Distributions of Surplus	September 30 March 31
Number of Shares Constituting One Unit	100 shares
Purchases and Sales of Less-than-one-Unit Shares	
Handling Office	Sumitomo Mitsui Trust Bank, Limited(Headquarters), 4-1 Marunouchi 1-chome, Chiyoda-ku, Tokyo
Transfer Agent	Sumitomo Mitsui Trust Bank, Limited 4-1 Marunouchi 1-chome, Chiyoda-ku, Tokyo
Forwarding Address	—
Purchase and Sale Fees	None
Method of Public Notice	NTT's method of public notice is through electronic disclosure. However, if NTT cannot use electronic disclosure due to accidents or for other unforeseen circumstances, NTT will provide public notice through <i>Nihon Keizai Shimbun</i> . NTT's URL for public notice is: http://www.ntt.co.jp/ir/index_e.html
Special Benefits to Shareholders	Not applicable.
Restrictions on Shareholder Eligibility	Pursuant to Article 6 of the Act on Nippon Telegraph and Telephone Corporation, Etc., the ratio of foreign ownership of voting rights to the total amount of voting rights of NTT's shares is permitted to be up to one-third.

Note: Pursuant to NTT's Articles of Incorporation, shareholders of NTT may not exercise rights with respect to shares representing less than one unit other than the following rights: rights set forth in Article 189, Paragraph 2 of the Companies Act; the right of request pursuant to the stipulations of Article 166, Paragraph 1 of the Companies Act; the right to receive allocations of offered shares and offered stock acquisition rights in accordance with the number of shares owned by the Shareholder; and the right to request the Company to sell shares in a number which, when combined with the shares representing less than one unit.

ITEM 7. REFERENCE INFORMATION ON THE COMPANY

1. Information about the Parent Company of the Company

NTT has no “parent company” as such term is defined in Article 24, Paragraph 7-1 of the Financial Instruments and Exchange Act of Japan.

2. Other Reference Information

NTT filed the following materials during period from April 1, 2018 to the date of the filing of this Annual Securities Report:

(1) Annual Securities Report, Including Attachments and Confirmation Letter

Fiscal Year (33 rd Business Term) (from April 1, 2017 to March 31, 2018)	Filed with the Director of the Kanto Local Finance Bureau on June 27, 2018
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(2) Internal Control Report, Including Attachments

Fiscal Year (33 rd Business Term) (from April 1, 2017 to March 31, 2018)	Filed with the Director of the Kanto Local Finance Bureau on June 27, 2018
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(3) Quarterly Reports and Confirmation Letters

First Quarter, 34 th Business Term (from April 1, 2018 to June 30, 2018)	Filed with the Director of the Kanto Local Finance Bureau on August 8, 2018
Second Quarter, 34 th Business Term (from July 1, 2018 to September 30, 2018)	Filed with the Director of the Kanto Local Finance Bureau on November 7, 2018
Third Quarter, 34 th Business Term (from October 1, 2018 to December 31, 2018)	Filed with the Director of the Kanto Local Finance Bureau on February 9, 2019

(4) Extraordinary Reports

Extraordinary Report Pursuant to Article 19, Paragraph 2, Item 9-2 of the Cabinet Office Ordinance Concerning Disclosure of Corporate Affairs, etc.	Filed with the Director of the Kanto Local Finance Bureau on June 27, 2018
Extraordinary Report Pursuant to Article 19, Paragraph 2, Item 12 of the Cabinet Office Ordinance Concerning Disclosure of Corporate Affairs, etc.	Filed with the Director of the Kanto Local Finance Bureau on November 6, 2018
Extraordinary Report Pursuant to Article 19, Paragraph 2, Item 9-2 of the Cabinet Office Ordinance Concerning Disclosure of Corporate Affairs, etc.	Filed with the Director of the Kanto Local Finance Bureau on June 26, 2019

(5) Stock Repurchase Status Reports

Reporting Period (from June 1, 2018 to June 30, 2018)	Filed with the Director of the Kanto Local Finance Bureau on July 3, 2018
Reporting Period (from November 1, 2018 to November 30, 2018)	Filed with the Director of the Kanto Local Finance Bureau on December 3, 2018
Reporting Period (from December 1, 2018 to December 31, 2018)	Filed with the Director of the Kanto Local Finance Bureau on January 7, 2019
Reporting Period (from January 1, 2019 to January 31, 2019)	Filed with the Director of the Kanto Local Finance Bureau on February 1, 2019
Reporting Period (from February 1, 2019 to February 28, 2019)	Filed with the Director of the Kanto Local Finance Bureau on March 1, 2019
Reporting Period (from March 1, 2019 to March 31, 2019)	Filed with the Director of the Kanto Local Finance Bureau on April 1, 2019
Reporting Period (from May 1, 2018 to May 31, 2019)	Filed with the Director of the Kanto Local Finance Bureau on June 3, 2019

PART II. INFORMATION ABOUT GUARANTORS OF THE COMPANY

Not applicable.

[English Translation of the Independent Auditor's Report Originally Issued in the Japanese Language]

Independent Auditor's Report on the Financial Statements
and
Internal Control Over Financial Reporting

June 26, 2019

To The Board of Directors of
Nippon Telegraph and Telephone Corporation

KPMG AZSA LLC

Takuji Kanai (Seal)
Designated Limited Liability Partner
Engagement Partner
Certified Public Accountant

Kensuke Sodekawa (Seal)
Designated Limited Liability Partner
Engagement Partner
Certified Public Accountant

Masashi Oki (Seal)
Designated Limited Liability Partner
Engagement Partner
Certified Public Accountant

Financial Statement Audit

We have audited the accompanying consolidated financial statements of Nippon Telegraph and Telephone Corporation and its consolidated subsidiaries provided in the "Financial Information" section in the Nippon Telegraph and Telephone Corporation's Annual Securities Report ("Yukashoken Hokokusho"), which comprise the consolidated statement of financial position as at March 31, 2019, and the consolidated statement of profit or loss, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the fiscal year then ended, and notes to the consolidated financial statements and supplementary schedules, in accordance with Article 193-2, Paragraph 1 of the Financial Instruments and Exchange Act of Japan.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with International Financial Reporting Standards, pursuant to Article 95 of the Ordinance on Terminology, Forms and Preparation Methods of Consolidated Financial Statements, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

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

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

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

Opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of Nippon Telegraph and Telephone Corporation and its consolidated subsidiaries as at March 31, 2019, and their financial performance and cash flows for the fiscal year then ended in accordance with International Financial Reporting Standards.

Internal Control Audit

We also have audited the internal control report of Nippon Telegraph and Telephone Corporation as at March 31, 2019, in accordance with Article 193-2, Paragraph 2 of the Financial Instruments and Exchange Act of Japan.

Management's Responsibility for the Internal Control Report

Management is responsible for the design and operation of internal control over financial reporting and the preparation and fair presentation of the internal control report in accordance with assessment standards for internal control over financial reporting generally accepted in Japan. Internal control over financial reporting may not completely prevent or detect financial reporting misstatements.

Auditor's Responsibility

Our responsibility is to independently express an opinion on the internal control report based on our internal control audit. We conducted our internal control audit in accordance with auditing standards for internal control over financial reporting generally accepted in Japan. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the internal control report is free from material misstatement.

An internal control audit involves performing procedures to obtain audit evidence about the assessment of internal control over financial reporting in the internal control report. The procedures selected depend on our judgment, including the assessment of significance of effect on the reliability of financial reporting. Also, an internal control audit includes evaluating the appropriateness of the scope, procedures and result of the assessment determined and presented by management, and the overall internal control report presentation.

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

Opinion

In our opinion, the internal control report, in which Nippon Telegraph and Telephone Corporation states that internal control over financial reporting was effective as at March 31, 2019, presents fairly, in all material respects, the assessment of internal control over financial reporting in accordance with assessment standards for internal control over financial reporting generally accepted in Japan.

Other Matter

Our firm and engagement partners have no interest in the Company which should be disclosed pursuant to the provisions of the Certified Public Accountants Act of Japan.

Notes to the Reader of Independent Auditor's Report on the Financial Statements and Internal Control Over Financial Reporting:

The Independent Auditor's Report on the Financial Statements and Internal Control Over Financial Reporting herein is the English translation of the Independent Auditor's Report on the Financial Statements and Internal Control Over Financial Reporting as required by the Financial Instruments and Exchange Act of Japan.

[Cover]

[Document Filed]	Internal Control Report
[Applicable Law]	Article 24-4-4, Paragraph 1 of the Financial Instruments and Exchange Act of Japan
[Filed With]	Director, Kanto Local Finance Bureau
[Filing Date]	June 26, 2019
[Company Name]	Nippon Denshin Denwa Kabushiki Kaisha
[Company Name in English]	NIPPON TELEGRAPH AND TELEPHONE CORPORATION
[Title and Name of Representative]	Jun Sawada, President and Chief Executive Officer
[Title and Name of Chief Financial Officer]	Akira Shimada, Senior Executive Vice President
[Address of Head Office]	5-1, Otemachi 1-chome, Chiyoda-ku, Tokyo
[Place Where Available for Public Inspection]	Tokyo Stock Exchange, Inc. (2-1, Nihombashi Kabutocho, Chuo-ku, Tokyo)

1. Matters Related to the Basic Framework for Internal Control over Financial Reporting

Mr. Jun Sawada, President and Chief Executive Officer, and Mr. Akira Shimada, Senior Executive Vice President, are responsible for the maintenance and operation of internal control over financial reporting of NTT. We maintain and operate internal control over financial reporting in accordance with the basic framework of internal control indicated in “On the Revision of the Standards and Practice Standards for Management Assessment and Audit concerning Internal Control Over Financial Reporting (Council Opinions)” published by the Business Accounting Council.

In addition, internal control seeks to achieve its purpose within a reasonable range through the organic combination and functioning of its basic elements. As a result, internal control over financial reporting may not be able to completely prevent or detect false statements in financial reporting.

2. Matters Related to Scope of Assessment, Record Date, and Assessment Procedures

The evaluation of internal control over financial reporting is conducted with a record date of March 31, 2019, which is the last day of the current consolidated fiscal year, and is made in accordance with assessment standards for internal control over financial reporting generally accepted in Japan.

In conducting this assessment, management conducted an evaluation of internal controls that have a material effect on the entirety of NTT’s financial reporting on a consolidated basis (“company-level controls”), and based on the results of that evaluation, selected business processes to be evaluated. In management’s evaluation of those business processes, management analyzed the selected business processes, identified key controls that have a material effect on the reliability of the NTT’s financial reporting, and assessed the maintenance and operation status of these key controls. These procedures were the basis of management’s evaluation of the effectiveness of NTT’s internal control.

Management determined the required scope of assessment of internal control over financial reporting for NTT, its consolidated subsidiaries and its affiliates accounted for under the equity method from the perspective of the materiality of the effect on the reliability of financial reporting. This materiality of the effect on the reliability of financial reporting is determined by assessing the materiality of quantitative and qualitative impacts. We confirmed that we had reasonably determined the scope of assessment of internal controls over business processes based on the results of our evaluation of internal controls of NTT and 11 consolidated subsidiaries taken as a whole. Consolidated subsidiaries and affiliates accounted for under the equity method who were determined to not be material from a quantitative or qualitative perspective were not included in the scope of evaluation of internal controls of the company as a whole.

Regarding the scope of the assessment of internal control over business processes, we totaled the figures from business units with high operating revenues (after eliminating intercompany transactions) for the previous consolidated fiscal year for each business unit. We designated five business units as “significant business units,” consisting of the three business units that accounted for approximately 2/3 of consolidated operating revenues for the previous consolidated fiscal year, together with business units that were qualitatively significant. At the selected significant business units, we included for purposes of our assessment those business processes that lead to operating revenues, operating receivables and other receivables (trade notes and accounts receivable), inventories and property, plant and equipment (telecommunications equipment and telecommunications line facilities). In addition, we have also included in the scope of our assessment, as business processes having greater materiality considering their impact on financial reporting (regardless of whether or not they are part of a significant business unit), business processes involving critical accounts that have a greater likelihood of containing material misstatements or that involve estimates and projections, as well as business processes involving high-risk transactions or operations.

3. Matters Related to the Results of the Assessment

As a result of the assessment described above, management concluded that, as of March 31, 2019, NTT’s internal control over financial reporting is effective based on those criteria.

4. Supplementary Matters

None.

5. Special Notes

None.

[Cover]

[Document Filed]	Confirmation Letter
[Applicable Law]	Article 24-4-2, Paragraph 1 of the Financial Instruments and Exchange Act of Japan
[Filed With]	Director, Kanto Local Finance Bureau
[Filing Date]	June 26, 2019
[Company Name]	Nippon Denshin Denwa Kabushiki Kaisha
[Company Name in English]	NIPPON TELEGRAPH AND TELEPHONE CORPORATION
[Title and Name of Representative]	Jun Sawada, President and Chief Executive Officer
[Title and Name of Chief Financial Officer]	Akira Shimada, Senior Executive Vice President
[Address of Head Office]	5-1, Otemachi 1-chome, Chiyoda-ku, Tokyo
[Place Where Available for Public Inspection]	Tokyo Stock Exchange, Inc. (2-1, Nihombashi Kabutocho, Chuo-ku, Tokyo)

1. Matters Related to Adequacy of Statements Contained in the Annual Securities Report

Mr. Jun Sawada, President and Chief Executive Officer, and Mr. Akira Shimada, Senior Executive Vice President, confirmed that statements contained in the Annual Securities Report for the 34th Business Term (from April 1, 2018 to March 31, 2019) were adequate under the Financial Instruments and Exchange Act.

2. Special Notes

None.