ANNUAL REPORT 2019

Report for the Fiscal Year Ended March 31, 2019

FINANCIAL SECTION

Nihon Dempa Kogyo Co., Ltd. and Consolidated Subsidiaries

CONTENTS

SIX-YEAR SUMMARY

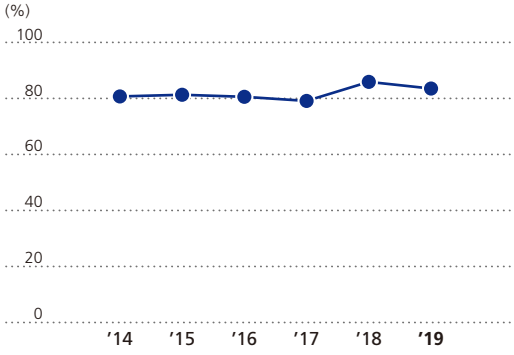
Nihon Dempa Kogyo Co., Ltd. and Consolidated Subsidiaries
For the years ended March 31

	Millions of yen						Thousands of U.S. dollars (Note)
	2019	2018	2017	2016	2015	2014	**2019**
Net sales	**¥42,498**	¥43,952	¥43,791	¥44,850	¥47,730	¥50,774	**$382,899**
Cost of sales	**35,497**	37,768	34,620	36,137	38,801	40,978	**319,821**
Selling, general and administrative expenses	**6,255**	6,642	6,479	6,718	7,713	7,496	**56,356**
Research and development expenses	**1,884**	1,787	2,035	1,921	2,133	2,221	**16,974**
Operating income/(loss)	**406**	(9,618)	727	410	175	240	**3,657**
(Loss)/Income before income tax	**(56)**	(9,640)	472	102	359	191	**(504)**
Net (loss)/income	**(251)**	(10,202)	611	317	(569)	181	**(2,261)**
Net (loss)/income attributable to owners of the parent	**(251)**	(10,202)	611	317	(569)	181	**(2,261)**
Total comprehensive (loss)/income for the period	**(460)**	(9,732)	(72)	(1,414)	1,319	827	**(4,144)**
Total assets	**60,784**	60,816	68,830	67,966	71,670	76,218	**547,652**
Total equity	**14,725**	15,108	25,234	25,700	27,507	26,581	**132,669**
Depreciation and amortisation	**3,469**	4,094	3,641	3,558	3,809	3,923	**31,255**
Capital expenditures	**2,376**	7,141	6,779	2,099	2,024	2,733	**21,407**

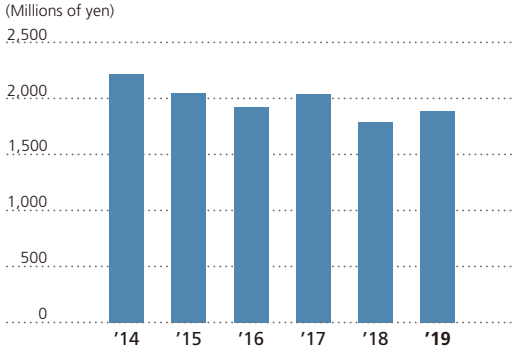
	Yen						U.S. dollars (Note)
Per Share Data:							
Net income/(loss):							
Basic	**¥(12.80)**	¥(519.87)	¥31.16	¥16.17	¥(29.00)	¥ 9.25	**$(0.11)**
Diluted	**—**	—	—	—	—	—	**—**
Cash dividends applicable to the period	**0**	10.00	20.00	20.00	20.00	20.00	**0**

Notes: 1. Figures are presented in accordance with International Financial Reporting Standards. The U.S. dollar amounts represent translations of Japanese yen amounts at the rate of ¥110.99 to U.S.$1.00, which was the rate prevailing on March 31, 2019.
2. The results for the year of 2014 are retrospective in line with changes in accounting policies.

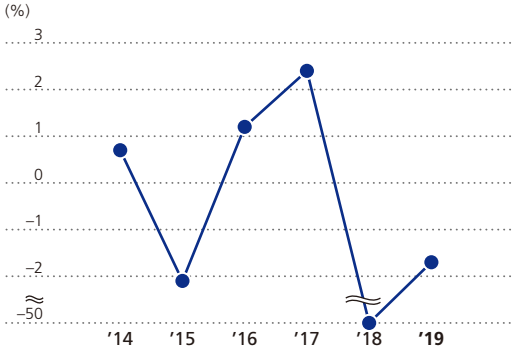
Cost of Sales/Net Sales



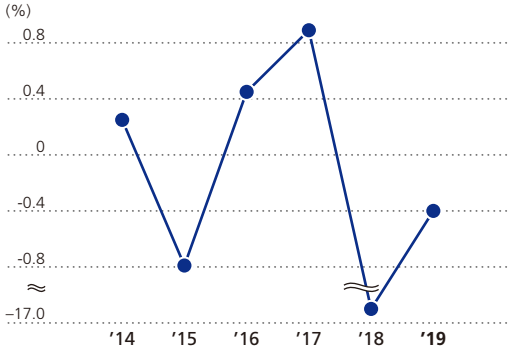
R&D Expenses



ROE



ROA



Outlook

During the year ended March 31, 2019, the global economy continued to show positive signs against the backdrop of an improved employment situation in the United States and other factors, but was buffeted by the impact of U.S.-China trade friction, and in China, decelerating personal consumption was among the clear signs of an economic slowdown. Europe is also gripped by political instability, and uncertainties for the future of the world economy continued.

In the automotive market in which the Group operates, since July 2018 the volume of new car sales in China has continued at a level that dropped below the previous fiscal period, and in Europe as well, the impact of new emissions testing introduced in September 2018 has led to a slowdown in new car sales. In addition, the quantity of smartphones shipped declined for the second consecutive year.

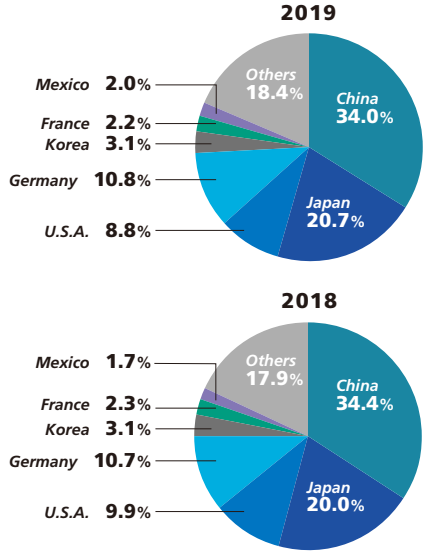
Sales rose for automotive cameras and radar used in vehicles equipped with Advanced Driver Assistance Systems (ADAS), although sales were flat compared to the previous fiscal year due to the impact of a decline in automobile demand in China and Europe. In addition, in mobile communications, net sales declined year on year due to stagnant sales for 2018 smartphone models, together with demand shifting from temperature compensated crystal oscillators (TCXOs) to crystal units with built-in temperature sensors, the sales prices for which are falling.

As one element of structural reforms, the Group transferred one part of production lines from its factories in Japan to an overseas factory to improve productivity and cost-competitiveness. Together with this, we have strived to promote the streamlining of administrative functions to reduce fixed costs. As a result, the Group posted positive operating income of ¥406 million. This, however, includes approximately ¥1.8 billion gain from selling the land use right and its buildings posted in line with a decision on the factory relocation of Suzhou NDK Co., Ltd., one of our consolidated subsidiaries. In addition, the Group posted an impairment loss of ¥396 million on facilities that had become idle in accordance with the review of productivity and rebuilding.

Results of Operations

Orders on a consolidated basis for the fiscal year declined 0.3%, to ¥42,161 million year on year, and consolidated net sales fell 3.3%, to ¥42,498 million. The Group recorded operating income of ¥406 million in the fiscal year under review, compared to an operating loss of ¥9,618 million in the previous fiscal year, a loss before income tax of ¥56 million versus the previous year's loss before income tax of ¥9,640 million, and the net loss for the period was ¥251 million, compared to a net loss of ¥10,202 million in the previous fiscal year.

Sales by Customer-Based Geographic Area



Sales by Product

Sales by product were as follows.

(1) Quartz Crystal Units

Mobile communications drove higher sales of crystal units with built-in temperature sensors and ultra-compact crystal units. For the automotive market, sales of crystal units increased for use in millimeter-wave radar used in ADAS equipment, although sales fell for high unit price products for other automotive applications, and the impact of that was a decline in net sales on a monetary basis. As a result, net sales declined 1.3% year on year, to ¥25,362 million.

(2) Crystal Devices

In the automotive market, sales rose for crystal oscillators in products such as vehicle-use cameras used in ADAS equipment. However, in the mobile communications market, sales of crystal oscillators declined due to the progression of a shift from TCXOs to crystal units with built-in temperature sensors. In addition, sales of surface acoustic wave (SAW) devices declined. As a result, net sales fell 8.9% year on year, to ¥12,650 million.

(3) Others

Sales of optical products for single-lens reflex cameras increased. As a result, net sales rose 2.6% year on year, to ¥4,484 million.

Performance by Customer-Based Geographic Area

Performance by customer-based geographic area was as follows.

Japan

Sales of optical products for single-lens reflex cameras increased. In addition, sales rose for special applications with frequency synthesizers, while sales fell for satellite stations.

Sales for automotive electronics rose slightly. As a result, net sales declined 0.2% year on year, to ¥8,782 million.

Asia

In mobile communications, sales of quartz crystal units increased owing to the advance of a shift away from TCXOs to crystal units with built-in temperature sensors, while sales of crystal oscillators declined. In addition, automotive-use crystal set sales fell. As a result, net sales in China decreased 4.4% year on year, to ¥14,443 million; sales in South Korea fell 3.1%, to ¥1,317 million; and sales in other areas decreased 2.0%, to ¥3,447 million.

Europe

Sales of crystal oscillators for automotive use increased, while net sales of crystal oscillators for industrial electronics declined. As a result, net sales in Germany fell 2.1% year on year, to ¥4,616 million, with sales in France of ¥919 million, down 6.8%, and sales in other regions in Europe amounting to ¥3,700 million, up 1.3%.

North America

Sales of SAW devices for mobile communications decreased. As a result, sales fell 14.1% year on year, to ¥3,728 million in the United States, and in the rest of North America, sales declined 42.6% year on year, to ¥68 million.

R&D Expenses

NDK engages in R&D programs that aim to establish new technologies and manufacturing methods that will be the foundation for future products in the medium and long terms. To better meet customer crystal device needs, the Group is strengthening its R&D systems, with the Sayama Plant as its hub. As part of this we are conducting R&D to develop next-generation frequency control, selection, and detection devices as well as enhancing its design and process technologies, which form the core of its R&D.

R&D expenses on a consolidated basis during the fiscal year under review totaled ¥1,884 million.

Financial Condition

At fiscal year-end, total assets were ¥60,784 million, a decrease of ¥31 million from the previous fiscal year-end. Factors contributing to this included an increase of ¥1,379 million in cash and cash equivalents, an increase in inventories of ¥660 million, and a decrease in property, plant and equipment of ¥2,514 million. Total liabilities were ¥46,059 million, an increase of ¥350 million from the previous fiscal year-end; principal factors included an increase of ¥2,165 million in loans and borrowings and a decline of ¥1,264 million in trade and other payables. Equity attributable to the owners of the Company amounted to ¥14,725 million, a decrease of ¥382 million, mainly due to a total comprehensive loss for the period of ¥460 million. As a result, the ratio of equity attributable to owners of the Company was 24.2%, 0.6 of a percentage point lower than at the previous fiscal year-end.

Capital Financing and Cash Flow Analysis

The Group obtains funds for working capital and capital investments from internal sources and bank loans. Bank loans include short-term loans with periods of one year or less procured for working capital and longer-term loans for long-term funding, such as for production facilities. As of March 31, 2019, the Group had outstanding balances of short-term loans and borrowings of ¥6,508 million and long-term loans and borrowings of ¥25,510 million.

The balance of cash and cash equivalents on a consolidated basis at the end of the fiscal year under review amounted to ¥8,231 million, which was an increase of ¥1,379 million from the end of the previous fiscal year. Factors positively influencing this change included a cash inflow of ¥13,500 million in proceeds from long-term loans and borrowings and depreciation and amortisation of ¥3,469 million. Factors negatively influencing the balance included the repayment of long-term loans and borrowings of ¥10,603 million and purchase of property, plant and equipment of ¥3,404 million.

Free cash flow amounted to a negative ¥671 million, which was an improvement of ¥7,575 million from the previous fiscal year. This reflects the net cash provided by operating activities of ¥1,615 million, and net cash used by investing activities of ¥2,286 million in the fiscal year under review.

Net cash provided by operating activities amounted to ¥1,615 million, a positive turnaround of ¥2,530 million compared to the previous fiscal year. While results were impacted by a gain on sales of land use right of negative ¥1,035 million, the Company posted such major cash inflows as depreciation and amortisation of ¥3,469 million.

Net cash used in investing activities was ¥2,286 million, ¥5,044 million higher than the previous fiscal year. Principal cash inflows included ¥1,214 million owing to proceeds of sales of land use right. Major cash outflows included the purchase of property, plant and equipment of ¥3,404 million.

Net cash provided by financing activities was ¥2,067 million, ¥395 million higher than the previous fiscal year. The major factors were proceeds from long-term loans and borrowings of ¥13,500 million and repayment of long-term loans and borrowings of ¥10,603 million.

Dividends

NDK regards returning profit to shareholders as a management priority and aims to maintain stable dividend payments while taking into account earnings, financial position, and other factors. NDK seeks to maintain a virtuous circle through a reasonable balance between the accumulation of retained earnings and shareholder dividend payments, and we are committed to further improving earnings performance by conducting R&D and capital investments that enable NDK to manufacture high-value-added and high-quality products that will effectively strengthen the Company's business structure. In the fiscal year ended March 31, 2019, we sincerely regret that we cancelled the payment of dividends.

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

Nihon Dempa Kogyo Co., Ltd. and Consolidated Subsidiaries
As of March 31, 2019 and 2018

	Millions of yen		Thousands of U.S. dollars
ASSETS	***2019***	*2018*	***2019***
Current assets:			
Cash and cash equivalents (Note 5)	**¥ 8,231**	¥6,851	**$ 74,159**
Trade receivables (Note 6)	**10,605**	10,878	**95,549**
Inventories (Note 7)	**14,401**	13,740	**129,750**
Income taxes refundable	**14**	17	**126**
Derivative assets (Note 29)	**8**	223	**72**
Others (Note 8)	**3,885**	2,961	**35,003**
Total current assets	**37,146**	34,673	**334,678**
Non-current assets:			
Property, plant and equipment (Note 9)	**21,104**	23,618	**190,143**
Intangible assets (Note 10)	**259**	251	**2,333**
Other financial assets (Note 11)	**1,508**	1,303	**13,586**
Deferred tax assets (Note 27)	**535**	655	**4,820**
Others (Note 12)	**230**	313	**2,072**
Total non-current assets	**23,638**	26,143	**212,974**
Total assets	**¥60,784**	¥60,816	**$547,652**

The accompanying notes to the consolidated financial statements are an integral part of these consolidated financial statements.

LIABILITIES AND EQUITY	Millions of yen 2019	Millions of yen 2018	Thousands of U.S. dollars 2019
Current liabilities:			
Loans and borrowings (Note 15)	**¥17,240**	¥16,611	**$155,329**
Trade and other payables (Note 13)	**8,627**	9,892	**77,727**
Derivative liabilities (Note 29)	**112**	28	**1,009**
Provisions (Note 32)	**346**	518	**3,117**
Income taxes payable	**103**	122	**928**
Others (Note 14)	**920**	1,096	**8,289**
Total current liabilities	**27,351**	28,270	**246,427**
Non-current liabilities:			
Loans and borrowings (Note 15)	**14,861**	13,325	**133,894**
Deferred tax liabilities (Note 27)	**248**	205	**2,234**
Employee benefits (Note 16)	**3,198**	3,448	**28,813**
Provisions (Note 32)	**113**	120	**1,018**
Deferred government grants	**48**	100	**432**
Others	**237**	237	**2,135**
Total non-current liabilities	**18,707**	17,438	**168,546**
Total liabilities	**46,059**	45,708	**414,983**
Equity:			
Share capital (Note 17)	**10,649**	10,649	**95,945**
Share premium (Note 17)	**3,069**	8,562	**27,651**
Other components of equity (Note 17)	**(873)**	(640)	**(7,865)**
Retained earnings	**1,880**	(3,463)	**16,938**
Total equity attributable to owners of the Company	**14,725**	15,108	**132,669**
Total equity	**14,725**	15,108	**132,669**
Total liabilities and equity	**¥60,784**	¥60,816	**$547,652**

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

Nihon Dempa Kogyo Co., Ltd. and Consolidated Subsidiaries
For the years ended March 31, 2019 and 2018

	Millions of yen		Thousands of U.S. dollars
	2019	2018	**2019**
Net sales (Note 19)	**¥42,498**	¥ 43,952	**$382,899**
Cost of sales (Notes 20, 24 and 25)	**(35,497)**	(37,768)	**(319,821)**
Gross profit	**7,001**	6,184	**63,077**
Selling, general and administrative expenses (Notes 21, 24, 25 and 30)	**(6,255)**	(6,642)	**(56,356)**
Research and development expenses (Notes 22, 24 and 25)	**(1,884)**	(1,787)	**(16,974)**
Other operating income (Note 23)	**2,217**	310	**19,974**
Other operating expenses (Notes 23 and 25)	**(672)**	(7,682)	**(6,054)**
Operating income/(loss)	**406**	(9,618)	**3,657**
Financial income (Note 26)	**201**	174	**1,810**
Financial expenses (Note 26)	**(665)**	(197)	**(5,991)**
Loss before income tax	**(56)**	(9,640)	**(504)**
Income tax expenses (Note 27)	**(194)**	(561)	**(1,747)**
Net loss for the period	**(251)**	(10,202)	**(2,261)**
Other comprehensive income:			
Items that will not be reclassified to profit or loss:			
Remeasurement of defined benefit plan	**96**	84	**864**
Financial assets measured at fair value through other comprehensive income	**(88)**	—	**(792)**
Income tax relating to items that will not be reclassified	**0**	—	**0**
Subtotal	**9**	84	**81**
Items that may be reclassified subsequently to profit or loss:			
Exchange differences on translation of foreign operations (Note 17)	**(164)**	378	**(1,477)**
Cash flow hedges (Note 17)	**(53)**	—	**(477)**
Change in fair value of available-for-sale financial assets (Note 17)	**—**	105	**—**
Change in fair value of available-for-sale financial assets transferred to profit or loss	**—**	(95)	**—**
Income tax relating to items that may be reclassified (Note 27)	**—**	(3)	**—**
Subtotal	**(218)**	384	**(1,964)**
Other comprehensive (loss)/income for the period, net of income tax	**(209)**	469	**(1,883)**
Total comprehensive loss for the period	**¥ (460)**	¥ (9,732)	**$(4,144)**
Net loss attributable to:			
Owners of the Company	**¥ (251)**	¥(10,202)	**$ (2,261)**
Total Comprehensive loss attributable to:			
Owners of the Company	**¥ (460)**	¥ (9,732)	**$ (4,144)**
	Yen		U.S. dollars
Earnings per share (Note 28):			
Basic loss per share	**¥ (12.80)**	¥(519.87)	**$ (0.11)**

The accompanying notes to the consolidated financial statements are an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

Nihon Dempa Kogyo Co., Ltd. and Consolidated Subsidiaries
For the years ended March 31, 2019 and 2018

	Millions of yen											
	Share capital	*Additional paid-in capital**	*Treasury shares**	*Share premium**	*Available-for-sale financial assets***	*Financial assets measured at fair value through other comprehensive income***	*Exchange differences on translation of foreign operations***	*Cash flow hedges***	*Other components of equity***	*Retained earnings*	*Attributable to owners of the Company*	*Total equity*
Balance at April 1, 2017	¥10,649	¥11,353	¥(2,789)	¥8,563	¥(49)	¥ —	¥(975)	¥ —	¥(1,025)	¥ 7,046	¥25,234	¥25,234
Total comprehensive income for the period												
Net loss				—					—	(10,202)	(10,202)	(10,202)
Other comprehensive income												
Remeasurement of defined benefit plan				—					—	84	84	84
Exchange differences on translation of foreign operations				—			378		378		378	378
Net change in fair value of avail able-for-sale financial assets				—	6				6		6	6
Total comprehensive loss for the period	—	—	—	—	6	—	378	—	384	(10,117)	(9,732)	(9,732)
Transactions with owners, recorded directly in equity												
Contributions by and distributions to owners												
Changes in treasury shares, net			(0)	(0)					—		(0)	(0)
Dividends declared (Note 18)				—					—	(392)	(392)	(392)
Total contributions by and distributions to owners	—	—	(0)	(0)	—	—	—	—	—	(392)	(392)	(392)
Total transactions with owners	—	—	(0)	(0)	—	—	—	—	—	(392)	(392)	(392)
Balance at March 31, 2018	¥10,649	¥11,353	¥(2,790)	¥8,562	¥(43)	¥ —	¥(596)	¥ —	¥ (640)	¥ (3,463)	¥15,108	¥15,108
Impact of changes in accounting policy	—	—	—	—	43	29	—	—	72	5	78	78
Adjusted balance at April 1, 2018	10,649	11,353	(2,790)	8,562	—	29	(596)	—	(567)	(3,458)	15,186	15,186
Total comprehensive income for the period												
Net loss				**—**					**—**	**(251)**	**(251)**	**(251)**
Other comprehensive income												
Remeasurement of defined benefit plan				**—**					**—**	**96**	**96**	**96**
Net change in financial assets measured at fair value through other comprehensive income				**—**		**(87)**			**(87)**		**(87)**	**(87)**
Exchange differences on translation of foreign operations				**—**			**(164)**		**(164)**		**(164)**	**(164)**
Cash flow hedges				**—**				**(53)**	**(53)**		**(53)**	**(53)**
Total comprehensive loss for the period	**—**	**—**	**—**	**—**	**—**	**(87)**	**(164)**	**(53)**	**(305)**	**(154)**	**(460)**	**(460)**
Transactions with owners, recorded directly in equity												
Contributions by and distributions to owners												
Changes in treasury shares, net			**(0)**	**(0)**					**—**		**(0)**	**(0)**
Transfer to retained earnings from share premium		**(5,493)**		**(5,493)**					**—**	**5,493**	**—**	**—**
Total contributions by and distributions to owners	**—**	**(5,493)**	**(0)**	**(5,493)**	**—**	**—**	**—**	**—**	**—**	**5,493**	**(0)**	**(0)**
Total transactions with owners	**—**	**(5,493)**	**(0)**	**(5,493)**	**—**	**—**	**—**	**—**	**—**	**5,493**	**(0)**	**(0)**
Balance at March 31, 2019	**¥10,649**	**¥5,859**	**¥(2,790)**	**¥3,069**	**¥ —**	**¥(58)**	**¥(761)**	**¥(53)**	**¥ (873)**	**¥ 1,880**	**¥14,725**	**¥14,725**

	Thousands of U.S. dollars											
	Share capital	*Additional paid-in capital**	*Treasury shares**	*Share premium**	*Available-for-sale financial assets***	*Financial assets measured at fair value through other comprehensive income***	*Exchange differences on translation of foreign operations***	*Cash flow hedges***	*Other components of equity***	*Retained earnings*	*Attributable to owners of the Company*	*Total equity*
Balance at March 31, 2018	$95,945	$102,288	$(25,137)	$77,142	$(387)	$ —	$(5,369)	$ —	$(5,766)	$(31,201)	$136,120	$136,120
Impact of changes in accounting policy	**—**	**—**	**—**	**—**	**387**	**261**	**—**	**—**	**648**	**45**	**702**	**702**
Adjusted balance at April 1, 2018	**95,945**	**102,288**	**(25,137)**	**77,142**	**—**	**261**	**(5,369)**	**—**	**(5,108)**	**(31,155)**	**136,823**	**136,823**
Total comprehensive income for the period												
Net loss				**—**					**—**	**(2,261)**	**(2,261)**	**(2,261)**
Other comprehensive income												
Remeasurement of defined benefit plan				**—**					**—**	**864**	**864**	**864**
Net change in financial assets measured at fair value through other comprehensive income				**—**		**(783)**			**(783)**		**(783)**	**(783)**
Exchange differences on translation of foreign operations				**—**			**(1,477)**		**(1,477)**		**(1,477)**	**(1,477)**
Cash flow hedges				**—**				**(477)**	**(477)**		**(477)**	**(477)**
Total comprehensive loss for the period	**—**	**—**	**—**	**—**	**—**	**(783)**	**(1,477)**	**(477)**	**(2,747)**	**(1,387)**	**(4,144)**	**(4,144)**
Transactions with owners, recorded directly in equity												
Contributions by and distributions to owners												
Changes in treasury shares, net			**(0)**	**(0)**					**—**		**(0)**	**(0)**
Transfer to retained earnings from share premium		**(49,490)**		**(49,490)**					**—**	**49,490**	**—**	**—**
Total contributions by and distributions to owners	**—**	**(49,490)**	**(0)**	**(49,490)**	**—**	**—**	**—**	**—**	**—**	**49,490**	**(0)**	**(0)**
Total transactions with owners	**—**	**(49,490)**	**(0)**	**(49,490)**	**—**	**—**	**—**	**—**	**—**	**49,490**	**(0)**	**(0)**
Balance at March 31, 2019	**$95,945**	**$ 52,788**	**$(25,137)**	**$27,651**	**$ —**	**$(522)**	**$(6,856)**	**$(477)**	**$(7,865)**	**$16,938**	**$132,669**	**$132,669**

** The figures in the share premium column are calculated by totalling additional paid-in capital and treasury shares.*

*** The figures in the other components of equity column are calculated by totalling available-for-sale financial assets, financial assets measured at fair value through other comprehensive income, exchange differences on translation of foreign operations and cash flow hedges.*

The accompanying notes to the consolidated financial statements are an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS

Nihon Dempa Kogyo Co., Ltd. and Consolidated Subsidiaries
For the years ended March 31, 2019 and 2018

	Millions of yen		Thousands of U.S. dollars
	2019	2018	**2019**
Operating activities:			
Loss before income tax	**¥ (56)**	¥ (9,640)	**$ (504)**
Depreciation and amortisation	**3,469**	4,094	**31,255**
Gain on sales of land use right	**(1,035)**	—	**(9,325)**
Gain on sales of property, plant and equipment	**(915)**	(6)	**(8,243)**
Loss on disposal of property, plant and equipment	**5**	2	**45**
Impairment losses of property, plant and equipment, and goodwill	**396**	6,515	**3,567**
Gain on sales of other financial assets	**(132)**	(100)	**(1,189)**
Impairment losses of other financial assets	**176**	5	**1,585**
Gain on receipt of subsidies	**(58)**	(63)	**(522)**
Decrease/(Increase) in trade receivables	**393**	(479)	**3,540**
Increase in inventories	**(650)**	(1,529)	**(5,856)**
(Decrease)/increase in trade payables	**(405)**	517	**(3,648)**
(Decrease)/increase in accrued bonuses	**(30)**	16	**(270)**
Decrease/(increase) in derivative assets	**214**	(222)	**1,928**
Increase/(decrease) in derivative liabilities	**30**	(185)	**270**
(Decrease)/increase in provisions	**(179)**	587	**(1,612)**
Interest and dividend income	**(68)**	(69)	**(612)**
Interest expense	**252**	178	**2,270**
Interest and dividends received	**68**	69	**612**
Interest paid	**(210)**	(141)	**(1,892)**
Income tax paid, net	**(55)**	(229)	**(495)**
Other, net	**407**	(233)	**3,666**
Net cash provided/(used in) by operating activities	**1,615**	(915)	**14,550**
Investing activities:			
Purchase of property, plant and equipment	**(3,404)**	(7,317)	**(30,669)**
Purchase of intangible assets	**(85)**	(66)	**(765)**
Purchase of other financial assets	**(704)**	(943)	**(6,342)**
Proceeds from sales of land use right	**1,214**	—	**10,937**
Proceeds from sales of property, plant and equipment	**145**	6	**1,306**
Proceeds from sales of other financial assets	**546**	987	**4,919**
Other, net	**0**	1	**0**
Net cash used in investing activities	**(2,286)**	(7,331)	**(20,596)**
Financing activities:			
Proceeds from long-term loans and borrowings	**13,500**	11,500	**121,632**
Repayment of long-term loans and borrowings	**(10,603)**	(10,100)	**(95,531)**
Net (decrease)/increase in short-term loans and borrowings	**(825)**	664	**(7,433)**
Cash dividends paid	**(3)**	(392)	**(27)**
Purchase and sales of treasury shares, net	**(0)**	(0)	**(0)**
Net cash provided by financing activities	**2,067**	1,671	**18,623**
Net increase/(decrease) in cash and cash equivalents	**1,395**	(6,575)	**12,568**
Cash and cash equivalents at beginning of year	**6,851**	13,350	**61,726**
Net effect of currency translation on cash and cash equivalents	**(16)**	76	**(144)**
Cash and cash equivalents at end of year (Note 5)	**¥ 8,231**	¥ 6,851	**$ 74,159**

The accompanying notes to the consolidated financial statements are an integral part of these consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Nihon Dempa Kogyo Co., Ltd. and Consolidated Subsidiaries

1. Reporting Entity

Nihon Dempa Kogyo Co., Ltd. ("NDK" or the "Company") is a company domiciled in Japan. The main activities of the Company and its subsidiaries (collectively, the "Group") are the production and sales of crystal-related products such as crystal devices. The consolidated financial statements of the Company as of and for the years ended March 31, 2019 and 2018 comprise those of the Group.

2. Basis of Preparation

(a) Statement of Compliance

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) adopted by the International Accounting Standards Board (IASB) and interpretations issued by the IFRS Interpretations Committee.

The consolidated financial statements were authorized for issue by Hiromi Katoh, Representative Director and President on June 18, 2019.

(b) Basis of Measurement

The consolidated financial statements are presented in Japanese yen, which is the functional currency of NDK, and figures of less than one million yen are omitted.

As stated in Note 3 "Significant Accounting Policies", the Group's consolidated financial statements have been prepared on the historical cost basis except for the following certain assets and liabilities:

- Financial instruments measured at fair value.
- Defined benefit assets and liabilities are recognised as the present value of the defined benefit obligation, less the fair value of the plan assets.

The translations of Japanese yen amounts into U.S. dollars are included solely for the convenience of the reader as supplementary information, using the prevailing exchange rate at March 31, 2019, which was ¥110.99 to U.S.$1.00. The convenience translations should not be construed as representations that the Japanese yen amounts have been, could have been, or could in the future be converted into U.S. dollars at this or any other rate of exchange.

Accounting policies have been consistently applied by the Group entities and are consistent with those used in the previous year unless otherwise stated.

The preparation of consolidated financial statements in conformity with IFRS requires management to make judgements, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets and liabilities, income and expenses. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimates are revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

Judgements and estimates made by management in the application of IFRS that have a significant effect on the amounts recognised in the consolidated financial statements are as follows:

- Estimate of useful lives and residual values of property, plant, equipment and intangible assets (refer to Notes 9 and 10)
- Accounting for and valuation of provisions (refer to Note 32)
- Devaluation of inventories (refer to Note 7)
- Valuation of trade and other receivables (refer to Notes 6, 8 and 29)
- Utilisation of tax losses and deductions (refer to Note 27)
- Planning and valuation premises upon which impairment tests are based (refer to Notes 9 and 10)
- Measurement of defined benefit obligations (refer to Note 16)

(c) Change in Classification

(Consolidated Statements of Financial Position)

"Investment securities" and financial assets contained in "Others" which were separately presented in "Non-current assets" for the fiscal year ended March 31, 2018 are included in "Other financial assets" from the fiscal year ended March 31, 2019, in order to improve the clarity of presentation of the consolidated financial statements. To reflect this change, consolidated statements of financial position for the fiscal year ended March 31, 2018 have been reclassified.

As a result, "Investment securities" of ¥1,079 million and financial assets of ¥224 million contained in "Others" in "Non-current assets" for the fiscal year ended March 31, 2018 are reclassified in as "Other financial assets" of ¥1,303 million.

(Consolidated statements of cash flows)

"Gain on sales of investment securities" which was separately presented in "Operating activities" for the fiscal year ended March 31, 2018 is presented as "Gain on sales of other financial asset" from the fiscal year ended March 31, 2019, in order to improve the clarity of presentation of the consolidated financial statements.

"Purchase of investments and other assets" and "Proceeds from sales of investments and other assets" which were separately presented in "Investing activities" for the fiscal year ended March 31, 2018 are presented as "Purchase of other financial assets" and "Proceeds from sales of other financial assets" respectively from the fiscal year ended March 31, 2019, in order to improve the clarity of presentation of the consolidated financial statements.

According to this change, comparative consolidated statements of cash flows for the fiscal year ended March 31, 2018 have been reclassified.

(d) Change in Significant Accounting Policies

From the year ended March 31, 2019, the Group has applied the following accounting policies.

(i) IFRS 9 (Financial Instruments)

The main content of this accounting policy is presented in (C) Financial Instruments of Note 3"Significant Accounting Policies".

In accordance with the adoption of IFRS 9, the Group has applied an exemption allowing comparative information for prior periods not to be restated with respect to classification and measurement (including impairment) requirements. The following assessments have been made on the basis of the facts and circumstances that existed at the date of initial application.

- Determining the business model in which the financial asset is held.
- Designation of specific financial assets and financial liabilities measured at fair value through profit and loss and revocation of previous designations of those.
- Designating investments in equity instruments that are not held for trading as at fair value through other comprehensive income.

As a result, the balance of both other components of equity and retained earnings at the beginning of the year ended March 31, 2019 increased by ¥72 million and ¥5 million, respectively.

Also, the impact of changing classification and measurement of financial assets due to the adoption of IFRS9 is as follows:

	Millions of yen				
IAS 39 (as of March 31, 2018)		*Reclassification*	*Remeasurement*		*IFRS 9 (as of April 1, 2018)*
Financial assets measured at amortised cost					Financial assets measured at amortised cost
Cash and cash equivalents	¥ 6,851	¥ —	¥ —	¥ 6,851	Cash and cash equivalents
Trade and other receivables	11,160	—	—	11,160	Trade and other receivables
Other financial assets	104	—	—	104	Other financial assets
Financial assets measured at fair value through profit or loss					Financial assets measured at fair value through profit or loss
Derivative financial assets	223	—	—	223	Derivative financial assets
		688	—	688	Other financial assets
Available-for-sale financial assets					Financial assets measured at fair value through other comprehensive income
Other financial assets measured at fair value	1,091	(579)	113	625	Other financial assets
Other financial assets measured at the historical cost	108	(108)	—	—	
Total	¥19,539	¥ —	¥113	¥19,653	Total

There is no material impact of adopting IFRS 9 on the Group's consolidated financial statements for the year ended March 31, 2019.

Of the equity instruments classified in available-for-sale financial assets for the fiscal year ended March 31, 2018, the Group classifies some financial assets held for the purpose of maintaining and strengthening business relationships into financial assets measured at fair value through other comprehensive income. Other than the above, the rest of available-for-sale financial assets are classified as financial assets measured at fair value through profit or loss. The Group had applied exception rule that measure at the historical cost to the unlisted shares classified in available-for-sale financial assets for the fiscal year ended March 31, 2018. With the transition to IFRS9, the Group measures them at fair value, and also classifies them in financial assets measured at fair value through other comprehensive income.

(ii) IFRS 15 (Revenue from Contracts with Customers)

The main contents of this accounting policy are presented in (j) Revenue Recognition of Note 3"Significant Accounting Policies".

As a transitional method chosen upon the adoption of IFRS 15, the Group recognises the cumulative effect of applying the new standard at the date of initial application. Accordingly, the comparative information presented and the consolidated financial statements for the previous years have not been restated.

There is no material impact of adopting IFRS 15 on the Group's consolidated financial statement for the year ended March 31, 2019.

3. Significant Accounting Polices

(a) Basis of Consolidation

(i) Subsidiaries

Subsidiaries are those entities controlled by the Group. In case that the Group has exposure or right to variable returns from its involvement with the entity and ability to use its power to affect those returns, it controls that entity. The financial statements of subsidiaries are included in the consolidated financial statements from the date on which control commences until the date on which control ceases.

(ii) Transactions eliminated on consolidation

Intra-group balances and transactions, and any unrealised gains arising from intra-group transactions, are eliminated in preparing the consolidated financial statements. Unrealised losses are eliminated in the same way as unrealised gains, but only to the extent that there is no evidence of impairment.

(iii) Scope of consolidation

The scope of consolidation, including NDK, comprises 14 consolidated companies as of March 31, 2019 and 2018. All domestic and overseas subsidiaries are consolidated for the years ended March 31, 2019 and 2018.

(b) Foreign Currency

(i) Foreign currency transactions

Transactions in foreign currencies are translated into functional currencies at the foreign exchange rate ruling at the date of the transaction.

Monetary assets and liabilities denominated in foreign currencies at the consolidated statement of financial position date are translated into functional currencies at the foreign exchange rate ruling at that date. Foreign exchange differences arising on translation are recognised in profit or loss. Non-monetary assets and liabilities that are measured in terms of historical cost in foreign currencies are translated using the exchange rate at the date of transaction. Non-monetary assets and liabilities denominated in foreign currencies that are stated at fair value are translated into functional currencies at the foreign exchange rates ruling at the dates the fair values were determined.

(ii) Financial statements of foreign operations

The assets and liabilities of foreign operations, other than those for which the functional currency is Japanese yen, are translated into the presentation currency (Japanese yen) at the foreign exchange rates ruling at the consolidated statement of financial position date. The revenues and expenses of foreign operations are translated into Japanese yen at the average rates of exchange for the period unless the exchange rates fluctuate significantly. Foreign exchange differences arising on translation are recognised in other comprehensive income.

The exchange rates for major currencies against Japanese yen for the years ended March 31, 2019 and 2018 were as follows:

		Yen			
		Year-end rate		*Average rate*	
		2019	*2018*	***2019***	*2018*
U.S.A.	US$	**¥110.99**	¥106.24	**¥110.69**	¥110.81
U.K.	GBP	**144.98**	148.84	**145.68**	147.27
Italy, Germany	EUR	**124.56**	130.52	**128.43**	129.45
China	RMB	**16.47**	16.92	**16.53**	16.74
Hong Kong	HK$	**14.14**	13.54	**14.12**	14.19
Malaysia	MYR	**27.21**	27.51	**27.21**	26.62
Singapore	SG$	**81.88**	81.02	**81.67**	81.76

(c) Financial Instruments

(The policy is applied in after April 1, 2018.)

Financial assets

(i) Initial recognition and measurement

The Group initially recognises trade and other receivables at the date they are originated. Other financial assets are initially recognised at the transaction date when the Group becomes a party to the contractual provisions of the financial instrument.

At initial recognition, all financial assets are measured at fair value, but those that are not classified as financial assets measured at fair value through profit or loss are measured at fair value plus transaction costs directly attributable to the acquisition of the financial assets. However, trade receivables that do not contain significant financial components are measured at the transaction price. Transaction costs of financial assets measured at fair value through profit or loss are recognised in profit or loss.

(ii) Classification and subsequent measurement

The Group classifies the financial assets held as follows:

1) Financial assets measured at amortised cost

Financial assets held by the Group are measured at amortised cost if both of the following conditions are met:

- The financial asset is held in a business model whose objective is to hold financial assets in order to collect contractual cash flows.
- The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal amount outstanding.

After initial recognition, the carrying amounts of financial assets measured at amortised cost are recognised using the effective interest method. Both the amortisation using the effective interest method and the gains or losses on derecognition of the financial assets measured at amortised cost are recognised in profit or loss for the period.

2) Debt instruments measured at fair value through other comprehensive income

Financial assets held by the Group are classified as debt instruments measured at fair value through other comprehensive income if both of the following conditions are met:

- The financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling the financial asset.
- 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.

These financial assets are measured at fair value after initial recognition, and changes in the fair value are recognised as other comprehensive income. If the Group derecognises these financial assets, the cumulative gain or loss recognised in other comprehensive income is reclassified to profit or loss.

3) Equity instruments measured at fair value through other comprehensive income

The Group has made an irrevocable election to present subsequent changes in the fair value of certain equity instruments in other comprehensive income, and classifies them in equity instruments measured at fair value through other comprehensive income.

These financial assets are measured at fair value after initial recognition, and changes in the fair value are recognised as other comprehensive income. If the Group derecognises these financial assets, the cumulative gain or loss recognised in other comprehensive income is reclassified to retained earnings.

Dividends from equity instruments measured at fair value through other comprehensive income are recognised in profit or loss.

4) Financial assets measured at fair value through profit or loss

Financial assets that are not classified above are classified as financial assets measured at fair value through profit or loss. These financial assets are measured at fair value after initial recognition, and changes in their fair value are recoginised in profit or loss.

(iii) Impairment of financial assets

With respect to impairment of financial assets measured at amortised cost, the Group recognises a loss allowance for expected credit losses on such financial assets. At each reporting date, the Group assesses whether the credit risks on the financial assets have increased significantly since initial recognition. If credit risk on a financial asset has not increased significantly since initial recognition, the loss allowance for that financial asset is measured at an amount equal to the 12-month expected credit losses. If credit risk on a financial asset has increased significantly since initial recognition, the loss allowance is measured at an amount equal to the lifetime expected credit losses. However, regarding trade receivables and others that do not contain significant financial components, the loss allowance on them is always measured at an amount equal to the lifetime expected credit losses. The amounts of these measurements are recognised as profit or loss. In the event of reducing impairments loss after the recognition of impairment loss, the decrease in impairment loss is recognized in profit or loss.

(iv) Derecognition of financial assets

The Group derecognises financial assets if contractual right to cash flows from financial assets expires or right to receive cash flows from financial assets is transferred and all risks and rewards of ownership of the financial assets are transferred substantially.

Financial liabilities

The Group initially recognises all financial liabilities on trading day when the Group becomes a party to the contractual provisions. The financial liabilities except for derivatives are measured at fair value deducting transaction costs that are directly attributable to the issue of the financial liabilities. After initial recognition, they are measured at amortised cost using the effective interest method. The Group derecognises the financial liabilities when the obligation specified in the contract is discharged or cancelled or expires.

Offset of financial assets and financial liabilities

Financial assets and financial liabilities are offset and the net amount is presented in the statement of financial position when the Group has a legally enforceable right to set off the amounts and intends either to settle them on a net basis or to realise the asset and settle the liability simultaneously.

Derivative financial instruments and hedge accounting

(i) Derivatives

While the Group uses forward exchange contracts and currency swap to hedge its currency risk, it uses interest rate swap to hedge its interest-rate risk. Derivatives are initially recognised at fair value on the contract date. After initial recognition, they are measured at fair value of the end of the period. The changes in the fair value of the derivative is recognised immediately in profit or loss when the derivatives are not designated as hedging instrument or the portion of changes in the fair value of the derivatives is not effective.

(ii) Hedge accounting

The Group designates interest rate swap as hedge instrument and accounts the swap as cash flow hedges. At the inception of designated hedging relationships, the Group documents risk management objectives and strategies about hedge instruments and hedge items which hedge accounting is applied. The effect of hedge is evaluated continuously from starting hedge. When a derivative is designated as a cash flow hedging instrument, the effective portion of changes in the fair value of the derivative is recognised in OCI and accumulated in other components of equity. The amounts of accumulated in other components of equity are reclassified to profit or loss in the same period or periods during which the hedge items affect profit or loss.

(The policy was applied in before March 31, 2018.)

Basis of Measurement

- Derivative financial instruments are measured at fair value.
- Available-for-sale financial assets, other than the securities which do not have a published price quotation in an active market and cannot be measured reliably, are measured at fair value.

Derivative Financial Instruments

The Group uses derivative financial instruments to hedge its exposure to foreign exchange and interest rate risks arising from operating, financing and investing activities. The Group does not apply hedge accounting, because the Group's derivative financial instruments do not qualify for hedge accounting. Derivative financial instruments are measured initially at fair value; attributable transaction costs are recognised in profit or loss when incurred. Subsequent to initial recognition, derivative financial instruments are measured at fair value. The fair values of derivative financial instruments are based on quotes from financial institutions. Changes in the fair value of derivative financial instruments are recognised immediately in profit or loss.

Cash and Cash Equivalents

Cash comprises cash on hand and bank deposits. Cash equivalents are short-term, highly liquid investments that are readily convertible to cash with original maturities of three months or less and are subject to an insignificant risk of change in value.

Trade and Other Receivables

Trade and other receivables are initially recognised at fair value. Subsequent to initial recognition, trade and other receivables are measured at amortised cost using the effective interest method.

Investment Securities

All investment securities are classified as available-for-sale and measured at fair value, other than securities which do not have a published price quotation in an active market and cannot be measured at fair value reliably. Securities which do not have a published price quotation in an active market and cannot be measured at fair value reliably are measured at historical cost. The fair value of an available-for-sale investment is its closing price at the consolidated statement of financial position date. Investments held as available-for-sale are recognised/derecognised on the date the Group commits to purchase/sell the investments. Gains and losses arising from the changes in the fair values of available-for-sale investments are recognised in other comprehensive income as net change in fair value of available-for-sale financial assets, until the investment is sold or otherwise disposed of or until it is determined to be impaired (refer to Significant Accounting Policies (Impairment of Assets)), at which time the cumulative gain or loss previously recognised in other comprehensive income is reclassified to profit or loss for the period. Interest and dividends received on available-for-sale investments are reported as financial income.

Impairment of Assets

Non-derivative financial assets

A financial asset not carried at fair value through profit or loss is assessed at each reporting date to determine whether there is objective evidence that it is impaired. A financial asset is impaired if objective evidence indicates that a loss event has occurred after the initial recognition of the asset, and that the loss event had a negative effect on the estimated future cash flows of that asset that can be estimated reliably. Objective evidence that financial assets are impaired can include default or delinquency by a debtor, restructuring of an amount due to the Group on terms that the Group would not consider otherwise, indications that a debtor or issuer will enter bankruptcy and the disappearance of an active market for a security. In addition, for an investment in an equity security, a significant or prolonged decline in its fair value below its cost is objective evidence of impairment. The Group considers evidence of impairment for receivables at both a specific asset and collective level. All individually significant receivables are assessed for specific impairment. All individually significant receivables found not to be specifically impaired are then collectively assessed for any impairment that has been incurred but not yet identified. Receivables that are not individually significant are collectively assessed for impairment by grouping together receivables with similar risk characteristics. In assessing collective impairment, the Group uses historical trends of the probability of default, timing of recoveries and the amount of loss incurred, adjusted for management's judgement as to whether current economic and credit conditions are such that the actual losses are likely to be greater or less than suggested by historical trends. An impairment loss in respect of receivables is calculated as the difference between its carrying amount and the present value of the estimated future cash flows discounted at the asset's original effective interest rate. Losses are recognised in profit or loss and reflected in an allowance account against receivables. Interest on the impaired asset continues to be recognised through the unwinding of the discount. When a subsequent event causes the amount of impairment loss to decrease, the decrease in impairment loss is reversed through profit or loss. Impairment losses on available-for-sale financial assets are recognised by transferring the cumulative loss that has been recognised in other comprehensive income and presented in change in fair value of available-for-sale financial assets in equity, to profit or loss. The cumulative loss that is reclassified from other comprehensive income to profit or loss is the difference between the acquisition cost, net of any principal repayment and amortisation, and the current fair value, less any impairment loss previously recognised in profit or loss. If the fair value of an impaired available-for-sale financial asset subsequently increases and the increase can be related objectively to an event occurring after the impairment loss was recognised, then the impairment loss is reversed through profit or loss; otherwise, it is reversed through other comprehensive income.

Trade and Other Payables

Trade and other payables are initially recognised at fair value. Subsequent to initial recognition, trade and other payables are measured at amortised cost using the effective interest method.

Loans and Borrowings

Loans and borrowings are recognised initially at fair value, less attributable transaction costs. Subsequent to initial recognition, loans and borrowings are measured at amortised cost using the effective interest method.

(d) Inventories

Inventories are valued at the lower of cost and net realisable value. Net realisable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and selling expenses. Cost is based primarily on the moving-average cost for raw materials and first-in, first-out cost for finished products, semi-finished products and work in process. For processed inventories, cost includes the applicable allocation of fixed and variable overhead costs.

(e) Property, Plant and Equipment

(i) Owned assets

Property, plant and equipment are stated at cost, less accumulated depreciation and impairment losses (refer to Significant Accounting Policies (g)).

Cost includes expenditures that are directly attributable to the acquisition of the asset, the costs of dismantling and removing the items and restoring the site on which they are located and borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset.

(ii) Leased assets

Leases in terms of which the Group assumes substantially all the risks and rewards of ownership of leased assets are classified as finance leases. Plant and equipment acquired by way of finance leases are stated at an amount equal to the lower of their fair value and the

present value of the minimum lease payments at inception of the leases, less accumulated depreciation and impairment losses (refer to Significant Accounting Policies (g)). The future lease payments are recorded as financial obligations.

Lease payments made under finance leases are apportioned between the finance expense and the reduction of the outstanding liability. The finance expense is allocated to each period during the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability.

(iii) Subsequent expenditure

The cost of replacing a part of an item of property, plant and equipment is recognised in the carrying amount of the item if it is probable that the future economic benefits embodied within the part will flow to the Group, and its cost can be measured reliably. The carrying amount of the replaced part is derecognised. The costs of the day-to-day servicing of property, plant and equipment are expensed in profit or loss as incurred.

(iv) Depreciation

Depreciation is charged to profit or loss on a straight-line basis over the following estimated useful lives;

- Buildings and structures 3-50 years
- Machinery and vehicles 2-15 years
- Furniture and fixtures 2-20 years

Property, plant and equipment are depreciated from the date they are available for use.

Leased assets are depreciated over their estimated useful lives except where subsequent transfer of title is uncertain, in which case they are depreciated over their estimated useful lives or the respective lease term, whichever is shorter.

No depreciation is provided on land and construction in progress.

Depreciation methods, useful lives and residual values are reviewed at each reporting date and adjusted if appropriate.

(f) Intangible Assets

(i) Goodwill

Goodwill represents the excess of the cost of acquisition over the Group's interest in the fair value of the net identifiable assets acquired. Goodwill is measured at cost less accumulated impairment losses (refer to Significant Accounting Policies (g)). Goodwill is subject to an annual impairment test and is subject to an impairment write-down, if applicable. Impairments of goodwill are not reversed.

(ii) Other intangible assets

Other intangible assets are measured at cost, less accumulated amortisation, and any accumulated impairment losses (refer to Significant Accounting Policies (g)), unless useful lives are indefinite. Other intangible assets mainly include software and patents.

(iii) Research and development

Expenditure on research activities, undertaken with the prospect of gaining new scientific or technical knowledge and understanding, is recognised in profit or loss when incurred. Development expenditure is capitalised only if development costs can be measured reliably, the product or process is technically and commercially feasible, future economic benefits are probable, and the Group intends to and has sufficient resources to complete development and to use or sell the asset.

Other development expenditure is expensed in profit or loss as incurred.

(iv) Subsequent expenditure

Subsequent expenditure on capitalised intangible assets is capitalised only when it increases the future economic benefits embodied in the specific asset to which it relates. All other expenditures are expensed in profit or loss as incurred.

(v) Amortisation

Amortisation is charged to profit or loss on a straight-line basis over the estimated useful lives of intangible assets other than goodwill, unless such lives are indefinite. Other intangible assets are amortised from the date they are available for use. Amortisation methods, useful lives and residual values are reviewed at each reporting date and adjusted if appropriate. The estimated useful lives are as follows:

- Software 3-5 years
- Patents 12 years

(g) Impairment of Non-financial assets

The carrying amounts of the Group's non-financial assets, other than inventories and deferred tax assets, are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, then the recoverable amount of the asset is estimated. For goodwill, and intangible assets that have indefinite useful lives or that are not yet available for use, the recoverable amount is estimated each year at the same time.

The recoverable amount of an asset or cash-generating unit is the greater of its value in use and its fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For the purpose of impairment testing, assets that cannot be tested individually are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or groups of assets (the "cash-generating unit" or "CGU"). For the purposes of goodwill impairment testing, CGUs to which goodwill has been allocated are aggregated so that the level at which impairment is tested reflects the lowest level at which goodwill is monitored for internal reporting purpose. Goodwill acquired in a business combination is allocated to groups of CGUs that are expected to benefit from the synergies of the combination.

The Group's corporate assets do not generate separate cash inflows. If there is an indication that a corporate asset may be impaired, then the recoverable amount is determined for the CGU to which the corporate asset belongs.

An impairment loss is recognised if the carrying amount of an asset or its CGU exceeds its estimated recoverable amount. Impairment losses are recognised in profit or loss. Impairment losses recognised in respect of CGUs are allocated first to reduce the carrying amount of any goodwill allocated to the CGUs, and then to reduce the carrying amounts of the other assets in the CGUs on a pro rata basis.

An impairment loss in respect of goodwill is not reversed. In respect of other assets, impairment losses recognised in prior periods are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the carrying amount of the asset does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

(h) Provisions

Provisions are recognised in the consolidated statements of financial position when the Group has a legal or constructive obligation as a result of a past event; it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation. If the effect is material, provisions are determined by discounting the expected future cash flows at a discount rate that reflects current market assessments of the time value of money and, where appropriate, the risks specific to the liability. The unwinding of the discount is recognised as a financial expense.

(i) Asset retirement obligation
In accordance with a contractual obligation to a landlord to dismantle and remove leasehold improvements from a leased office at the end of the lease contract, a provision for asset retirement obligation is recognised.

(ii) Settlement for products sold
The Company makes a provision for settlement for products sold regarding the damage incurred by customers attributed to the Company's products.

(i) Employee Benefits
(i) Defined benefit plans
The Group's net obligation with respect to defined benefit pension plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in return for their service in the current and prior periods; that benefit is discounted to determine the present value, and the fair value of any plan assets is deducted. The discount rate is the yield at the consolidated statement of financial position date on high quality corporate bonds that have maturity dates approximating the terms of the Group's obligations. The calculation is performed by a qualified actuary using the projected unit credit method. Adjustment by the remeasurement of the Group's net obligation with respect to defined benefit pension plans are recognised immediately in other comprehensive income, and is reclassified to retained earnings.

(ii) Defined contribution plans
The employees of the Company and certain subsidiaries are provided defined contribution plans based on local practices and regulations. Obligations for contributions to defined contribution pension plans are recognised as an expense in profit or loss as incurred. In addition, the Company participates in a defined benefit multi-employer plan. The Company accounts for the plan as if it were a defined contribution plan because sufficient information on the Company's share of the defined benefit obligation and plan assets in the plan is not available to use defined benefit accounting.

(iii) Short-term employee benefits
Short-term employee benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided. A liability is recognised for the amount expected to be paid as a bonus or vacation pay if the Group has a present legal or constructive obligation to pay this amount, and the obligation can be estimated reliably.

(j) Revenue Recognition
(The policy is applied in after April 1, 2018.)
With the adoption of IFRS 15, the Group recognises revenue based on the following five-step approach.

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

The main activities of the Group are the integrated manufacture and sale of quartz crystal units, crystal devices, ultrasonic transducers and synthetic quartz crystals. The revenue recorded in these businesses is recorded as sales according to the contract with the customer.

For sales of the Group's products, because the customer obtains control over the products upon delivery, when the significant risks and rewards of ownership have been transferred to the buyer, the performance obligation is judged to have been satisfied and revenue is therefore recognised upon delivery of the products. Also, revenue is measured at the consideration promised in a contract with a customer, less discounts, rebates, returned products and other items.

The consideration promised in product sales contracts is received mainly within one year from the time the product is delivered to the customer. The contracts with customers do not contain a significant financial component.

(The policy was applied in before March 31, 2018.)
Revenue from the sale of goods in ordinary business operations is measured at the fair value of the consideration received or receivable, net of returns, trade discounts and volume rebates. Revenue is recognised when the significant risks and rewards of ownership have been transferred to the buyer, there is no continuing management involvement with the goods, recovery of the consideration is probable and the associated costs and amount of revenue can be measured reliably.

(k) Government Grants
Government grants related to certain investments are measured at fair value and are recognised in the consolidated statements of financial position initially as deferred income when there is reasonable assurance that they will be received and that the Group will comply with the conditions attached to the grants. Grants that compensate the Group for expenses incurred are recognised as other operating income in profit or loss on a systematic basis in the same periods in which the expenses are recognised. Grants that compensate the Group for the cost of an asset are recognised as other operating income in profit or loss on a systematic basis over the useful life of the asset.

(l) Operating Lease
An operating lease is a lease other than a finance lease. Lease payments are recognised in profit or loss on a straight-line basis over the lease term.

(m) Financial Income and Expenses
Financial income and expenses mainly comprise interest income, dividend income, interest expense on borrowings calculated using the effective interest method, foreign exchange gains and losses, changes in the fair value of derivative financial instruments, impairment losses of financial assets measured at fair value through profit or loss, and gains and losses on sales of financial assets measured at fair value through profit or loss.

Interest income is recognised in profit or loss as it accrues, taking into account the effective yield on the asset. Dividend income is recognised in profit or loss on the date that the dividend is declared. Borrowing costs that are not directly attributable to the acquisition, construction or production of a qualifying asset are recognised in profit or loss using the effective interest method.

(n) Income Taxes
Income taxes comprise current and deferred taxes. Income taxes are recognised in profit or loss except to the extent that they relate to items recognised directly in equity or other comprehensive income.

Current taxes are the expected taxes payable on the taxable income for the year, using tax rates enacted or substantially enacted at the consolidated statement of financial position date, and any adjustment to taxes payable in respect of previous years.

Deferred taxes are recognised in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. The following temporary differences are not provided for: goodwill not deductible for tax purposes, the initial recognition of assets or liabilities that affect neither accounting nor taxable profit, and differences relating to investments in subsidiaries to the extent that they will probably not reverse in the foreseeable future.

The amount of deferred taxes recognised is based on the expected manner of realisation or settlement of the carrying amount of assets and liabilities, using tax rates enacted or substantially enacted at the consolidated statement of financial position date.

Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets, and they relate to income taxes levied by the same tax authority on the same taxable entity, or on different tax entities, but they intend to settle current tax liabilities and assets on a net basis or their tax assets and liabilities will be realised simultaneously.

A deferred tax asset is recognised for unused tax losses, tax credits and deductible temporary differences, to the extent that it is probable that future taxable profits will be available against which they can be utilised. Deferred tax assets are reduced to the extent that it is no longer probable that the related tax benefit will be realised.

(o) Segment Information

An operating segment is a component that engages in business activities from which it may earn revenues and incur expenses including revenues and expenses relating to transactions with other components of the Group.

The main activities of the Group are the integrated manufacture and sale of quartz crystal units, crystal devices, ultrasonic transducers and synthetic quartz crystals and there is no separate operating segment whose operating results are regularly reviewed by the Group's management to make decisions about resources to be allocated to the segment and assess its performance and for which discrete financial information is available. Therefore, the Group has a single reportable segment.

(p) New Standards and Interpretations Not Yet Adopted

The IASB has issued some standards, interpretations and amendments to existing standards whose application is not yet mandatory and which have not yet been applied by the Group ahead of time. These standards and interpretations are not expected to have significant effects on future consolidated financial statements of the Group, except IFRS 16 Lease.

IFRS 16 does not require that a lessee classifies its leases into finance or operating leases, and introduce a single lessee accounting model. A lessee recognises, for all leases with some exceptions, a right-of-use asset representing its right use of the underlying leased asset and a lease liability representing its obligation to make the lease payments. After the initial recognition of a right-of-use asset and a lease liability, an entity recognises depreciation cost of the right-of-use asset and interest expense of the lease liability. In addition, in applying IFRS16 the Group can select either method to apply retrospectively to all periods to be disclosed or method to recognise the amount of the cumulative effect due to the application of this standard on the date of application.

The Group plans to select the method to recognise the amount of the cumulative effect due to the application of this standard on the date of application. In addition, the Group plans to select the practical expedient on transition that an entity is not required to reassess definition of a lease.

Due to the application of IFRS16, both assets and liabilities as of April 1, 2019 are estimated to increase by approximately 1.2 billion yen. In addition, the impact on the consolidated statements of comprehensive income and consolidated statements of cash flows is considered to be immaterial.

4. Segment Information

General information

The main activities of the Group are the integrated manufacture and sale of quartz crystal units, crystal devices, ultrasonic transducers and synthetic quartz crystals, and there are no separate operating segments. Therefore, the Group has a single reportable segment.

Information about products and services

Net sales by type of products are as follows:

	Millions of yen						*Thousands of U.S. dollars*
	2019		*2018*		*Increase/(decrease)*		***2019***
	Amount	*Composition (%)*	*Amount*	*Composition (%)*	*Amount*	*Change (%)*	*Amount*
Quartz crystal units	**¥25,362**	**59.7**	¥25,691	58.5	¥ (329)	(1.3)	**$228,507**
Crystal devices	**12,650**	**29.8**	13,888	31.6	(1,237)	(8.9)	**113,974**
Others	**4,484**	**10.5**	4,372	9.9	112	2.6	**40,400**
Total	**¥42,498**	**100.0**	¥43,952	100.0	¥(1,454)	(3.3)	**$382,899**

Information about geographical areas

Sales by geographical areas and non-current assets other than financial instruments, deferred tax assets, post-employment benefit assets, and rights arising under insurance contracts are as set out below. Sales by geographical areas are categorised by country or areas of customers and non-current assets are based on the geographical location of the assets.

	Millions of yen								
	2019								
	Japan	*China*	*Germany*	*U.S.A.*	*Korea*	*France*	*Mexico*	*Others*	*Total*
Net sales	**¥8,782**	**¥14,443**	**¥4,616**	**¥3,728**	**¥1,317**	**¥919**	**¥863**	**¥7,827**	**¥42,498**
Non-current assets	**17,725**	**1,664**	**—**	**180**	**—**	**—**	**—**	**1,818**	**21,389**

	Millions of yen								
	2018								
	Japan	*China*	*Germany*	*U.S.A.*	*Korea*	*France*	*Mexico*	*Others*	*Total*
Net sales	¥ 8,801	¥15,109	¥4,714	¥4,339	¥1,359	¥986	¥759	¥7,881	¥43,952
Non-current assets	19,306	2,875	—	193	—	—	—	1,612	23,988

	Thousands of U.S. dollars								
	2019								
	Japan	China	Germany	U.S.A.	Korea	France	Mexico	Others	Total
Net sales	**$ 79,124**	**$130,128**	**$41,589**	**$33,588**	**$11,865**	**$8,280**	**$7,775**	**$70,519**	**$382,899**
Non-current assets	**159,699**	**14,992**	**—**	**1,621**	**—**	**—**	**—**	**16,379**	**192,711**

Major customers

During the years ended March 31, 2019 and 2018, there were no major external customers with net sales exceeding 10% of Group's total net sales.

5. Cash and Cash Equivalents

	Millions of yen		Thousands of U.S. dollars
	2019	2018	**2019**
Cash on hand and bank deposits	**¥8,231**	¥6,851	**$74,159**
Cash and cash equivalents in the consolidated statements of cash flows	**¥8,231**	¥6,851	**$74,159**

6. Trade Receivables

	Millions of yen		Thousands of U.S. dollars
	2019	2018	**2019**
Notes receivable and electronically recorded monetary claims	**¥ 587**	¥ 551	**$ 5,288**
Accounts receivable	**10,057**	10,381	**90,611**
A loss allowance	**(39)**	(54)	**(351)**
Total	**¥10,605**	¥10,878	**$95,549**

7. Inventories

	Millions of yen		Thousands of U.S. dollars
	2019	2018	**2019**
Finished products	**¥ 6,389**	¥ 6,093	**$ 57,563**
Semi-finished products	**880**	870	**7,928**
Work in process	**3,295**	3,370	**29,687**
Raw materials and supplies	**3,835**	3,406	**34,552**
Total	**¥14,401**	¥13,740	**$129,750**
Write-down of inventories recognised as an expense*	**¥ 1,919**	¥ 3,291	**$ 17,289**
Reversal of write-down*, **	**¥ (3,289)**	¥ (1,909)	**$ (29,633)**

** Write-down and the reversal of write-down of inventories are included in cost of sales.*

*** Since it is not possible for the Company to track individual utilisation of the inventory allowance, the total amount of write-down recognised at the previous year-end is reversed to cost of sales in the current period.*

**** There were no inventories pledged as security as of March 31, 2019 and 2018.*

8. Other Current Assets

	Millions of yen		Thousands of U.S. dollars
	2019	2018	**2019**
Prepaid expenses	**¥ 206**	¥ 198	**$ 1,856**
Other receivables	**1,841**	282	**16,587**
Advance payments	**24**	83	**216**
Consumption tax/ value-added tax receivables	**1,514**	2,139	**13,640**
Others	**297**	258	**2,675**
Total	**¥3,885**	¥2,961	**$35,003**

9. Property, Plant and Equipment

	Millions of yen					
	2018					
	Land	Buildings and structures	Machinery and vehicles	Furniture and fixtures	Construction in progress	Total
Cost:						
At April 1	¥3,676	¥ 29,394	¥ 74,039	¥ 5,411	¥2,238	¥114,760
Additions	—	530	4,646	265	1,636	7,078
Disposals	—	(9)	(3,114)	(115)	(0)	(3,239)
Currency translation differences	10	277	856	37	20	1,202
Transfers and others	—	89	899	25	(1,035)	(20)
At March 31	¥3,686	¥ 30,282	¥ 77,326	¥ 5,625	¥2,860	¥119,781
Accumulated depreciation and impairment losses:						
At April 1	¥ —	¥(20,470)	¥(63,287)	¥(4,705)	¥ (131)	¥ (88,595)
Depreciation for the year	—	(964)	(2,772)	(256)	—	(3,993)
Impairment losses	—	(167)	(4,873)	(14)	(762)	(5,817)
Disposals	—	9	3,113	114	—	3,237
Currency translation differences	—	(191)	(774)	(34)	(1)	(1,000)
Transfers and others	—	(1)	(102)	2	109	7
At March 31	¥ —	¥(21,785)	¥(68,696)	¥(4,894)	¥ (785)	¥ (96,162)
Net book value	¥3,686	¥ 8,497	¥ 8,630	¥ 730	¥2,074	¥ 23,618

	Millions of yen						Thousands of U.S. dollars
	2019						**2019**
	Land	Buildings and structures	Machinery and vehicles	Furniture and fixtures	Construction in progress	Total	Total
Cost:							
At April 1	**¥3,686**	**¥ 30,282**	**¥ 77,326**	**¥ 5,625**	**¥2,860**	**¥119,781**	**$1,079,205**
Additions	**—**	**356**	**1,386**	**286**	**252**	**2,281**	**20,551**
Disposals	**—**	**(3,810)**	**(3,917)**	**(293)**	**(33)**	**(8,054)**	**(72,565)**
Currency translation differences	**0**	**(83)**	**(339)**	**(12)**	**(17)**	**(452)**	**(4,072)**
Transfers and others	**—**	**77**	**2,030**	**1**	**(2,118)**	**(8)**	**(72)**
At March 31	**¥3,687**	**¥ 26,822**	**¥ 76,487**	**¥ 5,607**	**¥ 942**	**¥113,547**	**$1,023,038**
Accumulated depreciation and impairment losses:							
At April 1	**¥ —**	**¥(21,785)**	**¥(68,696)**	**¥(4,894)**	**¥ (785)**	**¥ (96,162)**	**$ (866,402)**
Depreciation for the year	**—**	**(953)**	**(2,164)**	**(253)**	**—**	**(3,371)**	**(30,372)**
Impairment losses	**—**	**(232)**	**(162)**	**(1)**	**—**	**(396)**	**(3,567)**
Disposals	**—**	**2,929**	**3,910**	**256**	**16**	**7,113**	**64,086**
Currency translation differences	**—**	**58**	**304**	**11**	**0**	**373**	**3,360**
Transfers and others	**—**	**(0)**	**(690)**	**(2)**	**691**	**(0)**	**(0)**
At March 31	**¥ —**	**¥(19,983)**	**¥(67,499)**	**¥(4,883)**	**¥ (76)**	**¥ (92,443)**	**$ (832,894)**
Net book value	**¥3,687**	**¥ 6,839**	**¥ 8,987**	**¥ 723**	**¥ 865**	**¥ 21,104**	**$ 190,143**

Notes: 1. Depreciation is included in cost of sales, selling, general and administrative expenses, research and development expenses and other operating expenses in the consolidated statements of comprehensive income.
2. There were no restrictions on title, on property, plant and equipment pledged as security as of March 31, 2019 and 2018.

Leased assets

The carrying amount of leased machinery and vehicles was ¥42 million ($378 thousand) and ¥46 million as of March 31, 2019 and 2018, respectively. The carrying amount of leased furniture and fixtures was ¥33 million ($297 thousand) and ¥36 million as of March 31, 2019 and 2018, respectively.

Property, plant and equipment acquired under finance leases for the years ended March 31, 2019 and 2018 amounted to ¥19 million ($171 thousand) and ¥34 million, respectively.

Construction in progress

During the years ended March 31, 2019 and 2018, the Group acquired new production lines under construction for crystal units and crystal devices. The cost of acquisition was ¥865 million ($7,793 thousand) and ¥2,074 million as of March 31, 2019 and 2018, respectively.

Impairment losses

The Group is grouping assets or groups of assets by company and business location based on the smallest group of assets that generates cash inflows that are largely independent of the cash inflows of other assets or groups of assets (the "cash-generating unit" or "CGU"). Idle assets which are not expected to be used in the future are grouped by individual asset units.

During the year ended March 31, 2018, due to the slowdown in the mobile communications market, sales are significantly lower than forecast and profitability has also deteriorated. After testing relevant of property, plant and equipment for impairment, impairment losses were recognised in other operating expenses for mainly production equipment of temperature compensated crystal oscillators (TCXOs) used for smartphone, crystal units with built-in temperature sensor and SAW devices for which the carrying amount exceeded the recoverable amount.

During the year ended March 31, 2019, impairment losses were recognised in other operating expenses. The loss was recognised mainly for the crystal units' production equipment for mobile market and the optical device related facilities in our subsidiary, Furukawa NDK Co., Ltd., both of which were idled because of reviewing and restructuring of production system.

Impairment losses for the year ended March 31, 2019 and 2018 were as follows:

			Millions of yen	*Thousands of U.S. dollars*
			2019	***2019***
Location	*Asset/Asset group*	*Category*	*Total*	*Total*
Sayama Plant (Sayama-city, Saitama, Japan)	Idle assets	Machinery and others	**¥163**	**$1,468**
Furukawa NDK Co., Ltd. (Osaki-city, Miyagi, Japan)	Idle assets	Building and others	**233**	**2,099**
Total			**¥396**	**$3,567**

Note: The recoverable amount of the asset group was measured at fair value less costs of disposal. The fair value less costs of disposal was based on the estimated amount on disposal after deducting the costs of disposal.

			Millions of yen
			2018
Location	*Asset/Asset group*	*Category*	*Total*
Sayama Plant (Sayama-city, Saitama, Japan)	Crystal units and Crystal oscillators	Machinery and others	¥1,682
	Idle assets	Machinery and others	455
	SAW devices	Machinery and others	1,147
	Optical devices	Machinery and others	285
Hakodate NDK Co., Ltd. (Hakodate-city, Hokkaido, Japan)	SAW devices	Machinery and others	490
Furukawa NDK Co., Ltd. (Osaki-city, Miyagi, Japan)	Idle assets	Machinery and others	1,161
Asian NDK Crystal Sdn. Bhd. (Selangor, Malaysia)	Crystal units and Crystal oscillators	Machinery	404
	Idle assets	Machinery	23
NDK America, Inc. (Illinois, U.S.A.)	Idle assets	Building	167
Total			¥5,817

Note: The recoverable amount of the asset group was measured at value in use or fair value less costs of disposal. Value in use was calculated using the discounted present value of future cash flows. The post-tax discount rate used in the calculation was from 6.8% to 11.9%. The fair value less costs of disposal was based on the estimated amount on disposal after deducting the costs of disposal.

10. Intangible Assets

	Millions of yen				
	2018				
	Computer software	*Goodwill*	*Patents*	*Others*	*Total*
Cost:					
At April 1	¥ 659	¥ 1,356	¥ 35	¥ 94	¥ 2,145
Additions	62	—	—	—	62
Disposals	(72)	—	—	—	(72)
Currency translation differences	(4)	—	—	—	(4)
Transfers and others	48	—	—	(48)	—
At March 31	¥ 693	¥ 1,356	¥ 35	¥ 46	¥ 2,131
Accumulated amortisation and impairment losses:					
At April 1	¥(480)	¥ (644)	¥(19)	¥(13)	¥(1,157)
Amortisation for the year	(96)	—	(2)	(1)	(101)
Impairment losses	—	(697)	—	—	(697)
Disposals	72	—	—	—	72
Currency translation differences	3	—	—	—	3
At March 31	¥(501)	¥(1,341)	¥(22)	¥(15)	¥(1,879)
Net book value	¥ 192	¥ 15	¥ 12	¥ 31	¥ 251

	Millions of yen					Thousands of U.S. dollars
	2019					2019
	Computer software	Goodwill	Patents	Others	Total	Total
Cost:						
At April 1	**¥ 693**	**¥ 1,356**	**¥ 35**	**¥ 46**	**¥ 2,131**	**$ 19,199**
Additions	**50**	**—**	**—**	**43**	**94**	**846**
Disposals	**(97)**	**—**	**—**	**—**	**(97)**	**(873)**
Currency translation differences	**4**	**—**	**—**	**0**	**4**	**36**
Transfers and others	**—**	**—**	**—**	**11**	**11**	**99**
At March 31	**¥ 650**	**¥ 1,356**	**¥ 35**	**¥101**	**¥ 2,144**	**$ 19,317**
Accumulated amortisation and impairment losses:						
At April 1	**¥(501)**	**¥(1,341)**	**¥(22)**	**¥ (15)**	**¥(1,879)**	**$(16,929)**
Amortisation for the year	**(92)**	**—**	**(2)**	**(2)**	**(97)**	**(873)**
Disposals	**97**	**—**	**—**	**—**	**97**	**873**
Currency translation differences	**(4)**	**—**	**—**	**—**	**(4)**	**(36)**
At March 31	**¥(500)**	**¥(1,341)**	**¥(25)**	**¥ (17)**	**¥(1,884)**	**$(16,974)**
Net book value	**¥ 150**	**¥ 15**	**¥ 9**	**¥ 84**	**¥ 259**	**$ 2,333**

Note: Amortisation is included in cost of sales, selling, general and administrative expenses and research and development expenses

Impairment losses

• Goodwill

During the year ended March 31, 2018, as a result of annual impairment tests, the recoverable amount of the cash-generating unit fell short the net book value and impairment losses of ¥697 million in other operating expenses were recognised.

The recoverable amount of the cash-generating unit, including the goodwill for SAW device production, was calculated by discounted future cash flows to be derived from continuing use on the basis of the value in use.

The post-tax discount rate calculated using weighted average capital cost of the nation to which the CGU belongs was 6.8% for the year ended March 31, 2018.

The cash flows were projected based on actual operating results and the three-year plan approved by management. The plan was made based on external and internal information including management's assessment of future industry forecasts and historical results. The growth rates used for the cash flow estimation more than the three-year were assumed to be zero by considering the long-term average growth rate of the market to which the CGU belongs and uncertainty of the long-term forecast.

Even if the discount rate, the planned profit and the growth rates as a basis for calculating the value in use were revised based on reasonably possible changes, it is considered that the probability of such recoverable amount becoming less than the carrying amount is unlikely.

During the year ended March 31, 2019, there were no impairment losses.

• Other intangible assets

During the years ended March 31, 2019 and 2018, there were no impairment losses.

11. Other financial assets

	Millions of yen		Thousands of U.S. dollars
	2019	2018	2019
Securities and mutual funds	**¥1,207**	¥1,079	**$10,874**
Golf and resort club memberships	**108**	119	**973**
Security deposit	**100**	104	**900**
Long-term other receivable	**92**	—	**828**
Total	**¥1,508**	¥1,303	**$13,586**

12. Other Non-current Assets

	Millions of yen		Thousands of U.S. dollars
	2019	2018	2019
Long-term prepaid expenses	**¥ 25**	¥117	**$ 225**
Insurance premium reserve	**197**	187	**1,774**
Others	**7**	8	**63**
Total	**¥230**	¥313	**$2,072**

13. Trade and Other Payables

	Millions of yen		Thousands of U.S. dollars
	2019	2018	2019
Trade accounts payable	**¥4,690**	¥5,124	**$42,256**
Accrued expenses	**2,936**	2,824	**26,452**
Other payables	**1,000**	1,943	**9,009**
Total	**¥8,627**	¥9,892	**$77,727**

14. Other Current Liabilities

	Millions of yen		Thousands of U.S. dollars
	2019	2018	2019
Accrued vacation pay	**¥461**	¥457	**$4,153**
Advance received	**289**	470	**2,603**
Others	**169**	168	**1,522**
Total	**¥920**	¥1,096	**$8,289**

15. Loans and Borrowings

This note provides information about the contractual terms of the Group's interest-bearing loans and borrowings.

Loans and borrowings at March 31, 2019 and 2018 comprised the following:

	Millions of yen		Thousands of U.S. dollars
	2019	2018	**2019**
Short-term loans and borrowings:			
Unsecured bank loans	**¥ 6,508**	¥ 7,274	**$ 58,635**
Long-term loans and borrowings maturing within one year:			
Unsecured bank loans	**10,704**	9,308	**96,441**
Finance lease obligations	**27**	27	**243**
Total	**¥17,240**	¥16,611	**$155,329**
Long-term loans and borrowings:			
Unsecured bank loans	**¥14,805**	¥13,262	**$133,390**
Finance lease obligations	**55**	62	**495**
Total	**¥14,861**	¥13,325	**$133,894**

The maturities of long-term loans and borrowings at March 31, 2019 and 2018 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2019	2018	**2019**
The second year	**¥ 7,672**	¥ 7,476	**$ 69,123**
The third year	**4,075**	4,501	**36,715**
The fourth year	**2,229**	1,162	**20,082**
The fifth year	**881**	182	**7,937**
Thereafter	**3**	2	**27**
Total	**¥14,861**	¥13,325	**$133,894**

Future minimum lease payments for the finance leases are as follows:

	Millions of yen				Thousands of U.S. dollars	
	2019		2018		**2019**	
	Present value	Future value	Present value	Future value	Present value	Future value
Within one year	**¥27**	**¥28**	¥27	¥28	**$243**	**$252**
From one year through five years	**55**	**55**	62	63	**495**	**495**
Total minimum lease obligations	**¥83**	**¥83**	¥90	¥92	**$747**	**$747**

Note: The difference between the future value of the minimum lease payments and their present value represents the interest element of the finance leases.

The following table indicates the effective interest rates and maturity dates of interest-bearing financial liabilities at the consolidated statement of financial position date.

	Effective interest rate (weighted average)	Millions of yen		
		Carrying amount		
As of March 31, 2019		Within one year	More than one year	Total
Short-term loans and borrowings:				
Unsecured bank loans with fixed rates	**1.12%**	**¥6,508**	**¥ —**	**¥ 6,508**
Long-term loans and borrowings:				
Unsecured bank loans with fixed rates*	**0.51**	**7,141**	**9,754**	**16,896**
Unsecured bank loans with floating rates	**0.44**	**3,562**	**5,051**	**8,613**
Finance lease obligations with fixed rates	**2.31**	**27**	**55**	**83**

	Effective interest rate (weighted average)	Millions of yen		
		Carrying amount		
As of March 31, 2018		Within one year	More than one year	Total
Short-term loans and borrowings:				
Unsecured bank loans with fixed rates	0.53%	¥7,274	¥ —	¥ 7,274
Long-term loans and borrowings:				
Unsecured bank loans with fixed rates	0.32	6,340	8,684	15,024
Unsecured bank loans with floating rates	0.34	2,968	4,578	7,546
Finance lease obligations with fixed rates	2.66	27	62	90

As of March 31, 2019	Thousands of U.S. dollars		
	Carrying amount		
	Within one year	More than one year	Total
Short-term loans and borrowings:			
Unsecured bank loans with fixed rates	**$58,635**	**$ —**	**$58,635**
Long-term loans and borrowings:			
Unsecured bank loans with fixed rates*	**64,339**	**87,881**	**152,229**
Unsecured bank loans with floating rates	**32,092**	**45,508**	**77,601**
Finance lease obligations with fixed rates	**243**	**495**	**747**

*Long-term loans and borrowings in interest rate swap that is substantially fixed rates is included in unsecured bank loans with fixed rates.

The Group's exposure to foreign currency and liquidity risks are described in Note 29.

16. Employee Benefits

Defined benefit plans

The Company and certain subsidiaries provide defined benefit plans for their employees. Benefits are dependent on the levels of wages and salaries at the times of retirement or termination, lengths of service and certain other factors. The defined benefit obligations are recognised on the basis of actuarial assumptions of discount rate and others. As a result, they are exposed to risk by movement of these assumptions.

The following table reconciles the funded status of the defined benefit plans to the amounts recognised in the consolidated statements of financial position:

	Millions of yen		Thousands of U.S. dollars
	2019	2018	**2019**
Present value of funded obligations	**¥7,667**	¥7,695	**$69,078**
Fair value of plan assets	**(6,778)**	(6,607)	**(61,068)**
	889	1,087	**8,009**
Present value of unfunded obligations	**2,308**	2,360	**20,794**
Net liabilities recognised in the consolidated statements of financial position	**¥3,198**	¥3,448	**$28,813**

Movement in present value of the defined benefit obligations:

	Millions of yen		Thousands of U.S. dollars
	2019	2018	**2019**
Defined benefit obligations at April 1	**¥10,056**	¥ 9,871	**$90,602**
Benefits paid by the plan	**(452)**	(364)	**(4,072)**
Benefits paid by the Group	**(174)**	(113)	**(1,567)**
Current service costs**	**546**	543	**4,919**
Interest cost**	**29**	38	**261**
Actuarial (gains)/losses***	**(28)**	81	**(252)**
Defined benefit obligations at March 31	**¥ 9,976**	¥10,056	**$89,881**

* The weighted-average duration of the defined benefit obligation was 10 years as of March 31, 2019, and 11 years as of March 31, 2018.

** Current service costs and interest cost (net interest after deducting interest income on plan assets) are included in cost of sales, selling, general and administrative expenses and research and development expenses.

*** Actuarial (gains)/losses arose from changes in financial assumptions and others.

Movement in fair value of plan assets:

	Millions of yen		Thousands of U.S. dollars
	2019	2018	**2019**
Fair value of plan assets at April 1	**¥6,607**	¥6,247	**$59,527**
Contributions paid to the plan*	**536**	534	**4,829**
Benefits paid by the plan	**(452)**	(364)	**(4,072)**
Interest income	**19**	24	**171**
Return on plan assets, excluding interest income	**67**	166	**603**
Fair value of plan assets at March 31	**¥6,778**	¥6,607	**$61,068**

* The Company and certain subsidiaries expect to pay ¥529 million ($4,766 thousand) in contributions to defined benefit plans for the year ending March 31, 2020.

The target of the management of plan assets is to secure needed total earnings in the long term to sustain the payment of pension and lump-sum benefits in the future, paying attention to medium-term risk of downward market trends.

The Group designs an optimal portfolio to achieve this target, attempts to maintain asset allocations based on this portfolio and reviews the necessity of rebalancing the portfolio as needed.

Plan assets consist of the following:

	Millions of yen		Thousands of U.S. dollars
	2019	2018	**2019**
Pension investment fund trust*	**¥5,023**	¥4,915	**$45,256**
Life insurance company general accounts**	**1,525**	1,455	**13,739**
Others	**229**	236	**2,063**
Total plan assets	**¥6,778**	¥6,607	**$61,068**

* The components of the pension investment fund trust were Domestic bonds 64%, Domestic equities 12%, Foreign-currency equities 14% and Foreign-currency bonds & others 10% as of March 31, 2019, and Domestic bonds 66%, Domestic equities 12%, Foreign-currency equities 12% and Foreign-currency bonds & others 10% as of March 31, 2018. The fair value measurement of these assets is classified as Level 2 in the fair value hierarchy (refer to Note 29).

** Life insurance company general accounts are group pension general accounts which are guaranteed certain assumed interest rates and return of principal, the fair value measurement of which is classified as Level 2 in the fair value hierarchy. There are no quoted market prices in an active market.

Principal actuarial assumptions used to determine pension obligations as of March 31, 2019 and 2018 are as follows:

	2019	2018
Discount rate	**0.3%**	0.3%

Note: Other actuarial assumptions include mortality rate, turnover rate, future salary growth rate, and others.

Changes of the discount rate would have affected the defined benefit obligation by the amounts shown below. This analysis assumes that all variables other than the discount rate remain constant.

	Millions of yen		Thousands of U.S. dollars
	2019	2018	**2019**
Discount rate - 0.1% increase	**¥(101)**	¥(104)	**$(909)**
Discount rate - 0.1% decrease	**¥ 102**	¥ 105	**$ 919**

Defined contribution plans

In addition to the preceding plans, the Company and a majority of its subsidiaries, overseas and domestic, sponsor defined contribution plans based on local practices and regulations. The Group's contributions were as follows:

	Millions of yen		Thousands of U.S. dollars
	2019	2018	**2019**
Contributions paid to the plans	**¥1,171**	¥1,178	**$10,550**

Note: Contributions are included in cost of sales, selling, general and administrative expenses and research and development expenses.

Multi-employer plan

The Company participates in the welfare pension fund for the Tokyo Electrical Industry Corporate Pension Fund Organization, a multi-employer defined benefit plan.

For the multi-employer defined benefit plan, sufficient information is not available to use defined benefit accounting since it is not possible to calculate the amount of plan assets corresponding to the Company's contributions. Therefore, the Company accounts for the plan as if it were a defined contribution plan, and the contributions are included in cost of sales, selling, general and administrative expenses and research and development expenses.

The contributions paid to the plan are as follows:

	Millions of yen		Thousands of U.S. dollars
	2019	2018	**2019**
Contributions paid to the plan	**¥144**	¥146	**$1,297**

Notes: 1. Contributions are calculated by multiplying the standard salary of each member by a defined contribution rate. In case the plan is underfunded, future contributions to the plan may increase.
2. Assets contributed to the plan may be used to provide benefits to employees of other participating employers. If the other participating employer stops contributing to the plan, the unfunded obligations of the plan may be borne by the remaining participating employers.
3. The Company expects to pay ¥150 million ($1,351 thousand) in contributions to the plan for the year ending March 31, 2020.

Information for the multi-employer plan as a whole which is not in accordance with IAS 19 Employee Benefits is as follows:

	Millions of yen		Thousands of U.S. dollars
	As of March 31, 2018	As of March 31, 2017	**As of March 31, 2018**
Fair value of plan assets	**¥130,908**	¥127,443	**$1,179,457**
Actuarial benefit obligation in the plan	**146,380**	149,315	**1,318,857**
Net	**¥ (15,471)**	¥ (21,871)	**$ (139,390)**
Surplus	**¥ 4,850**	¥ 6,159	**$43,697**
General reserve	**(1,486)**	(7,646)	**(13,388)**
Unamortised past service obligation	**(18,834)**	(20,384)	**(169,690)**
Total	**¥ (15,471)**	¥ (21,871)	**$ (139,390)**
Amortisation method of past service obligation	**The amounts of principal and interest are amortised equally for 20 years.**	The amounts of principal and interest are amortised equally for 20 years.	
Ratio of contributions by the Company to the plan as a whole	**2.83%**	2.79%	

Note: In case of withdrawing from the plan, the Company may be required to pay the amount of unfunded obligations proportional to the Company's ratio of contributions to the plan as a whole.

Termination benefits

Certain subsidiaries paid additional compensation to employees for early retirement recorded as an expense in cost of sales.

	Millions of yen		Thousands of U.S. dollars
	2019	2018	**2019**
Expense recognised in consolidated statements of comprehensive income	**¥8**	¥3	**$72**

17. Share Capital

	Number of shares	
	2019	2018
Class of shares*	**Ordinary shares**	Ordinary shares
Number of authorised shares	**40,000,000**	40,000,000
Number of outstanding shares**		
At April 1	**20,757,905**	20,757,905
Increase or decrease	**—**	—
At March 31	**20,757,905**	20,757,905
Number of treasury shares		
At April 1	**1,132,818**	1,132,282
Number of purchased or sold shares less than a full trading unit	**336**	536
At March 31	**1,133,154**	1,132,818

** Ordinary shares have no par value.*
*** Outstanding shares are fully paid.*

Treasury shares

When share capital recognised as equity is repurchased, the amount of the consideration paid, which includes directly attributable costs, net of any tax effects, is recognised as a deduction from equity.

Repurchased shares are classified as treasury shares and are presented as a deduction from total equity. When treasury shares are sold or reissued subsequently, the amount received is recognised as an increase in equity, and the resulting surplus or deficit on the transaction is transferred to/from retained earnings.

Other components of equity

Financial assets measured at fair value through other comprehensive income

Financial assets measured at fair value through other comprehensive income is the amounts of the cumulative net change in the fair value of financial assets measured at fair value through other comprehensive income until the assets are derecognised.

Translation differences for foreign operations

This reserve is used for translation differences arising on the consolidation of financial statements of foreign subsidiaries.

Cash flow hedge

This reserve is the effective portion of the cumulative net change in the fair value of hedging instruments used in cash flow hedges.

18. Dividends

Payments of dividends in the year ended March 31, 2018:

		Amount of dividends		Dividend per share		
Resolution	*Class of shares*	*Millions of yen*	*Thousands of U.S. dollars*	*Yen*	*Record date*	*Payment date*
Annual general meeting on June 23, 2017	Ordinary shares	¥196	$1,765	¥10	March 31, 2017	June 26, 2017
Board of directors on November 6, 2017	Ordinary shares	¥196	$1,765	¥10	September 30, 2017	December 11, 2017

Payments of dividends in the year ended March 31, 2019:
On June 22, 2018, no dividend was proposed to shareholders at the annual general meeting.
On June 21, 2019, no dividend will be proposed to shareholders at the annual general meeting.

19. Sales

Disaggregation of Revenue

The main activities of the Group are the integrated manufacture and sale of quartz crystal units, crystal devices, ultrasonic transducers and synthetic quartz crystals. The revenue from these businesses is recorded as sales in accordance with the contracts with the customers.

Disaggregation of revenue from contracts with customers is presented in "Information about products and services" of Note 4 "Segment Information".

Liabilities from Contracts with Customers

Liabilities from Contracts with Customers are as follows:

	Millions of yen		Thousands of U.S. dollars	
	March 31 2019	*April 1 2018*	***March 31 2019***	*April 1 2018*
Contract Liabilities				
Advances received	**¥289**	¥470	**$2,603**	$4,234

Note: The amounts of revenue recognised for the year ended March 31, 2019 that was included in the advances received balance at the beginning of the period are ¥184 million ($1,657 thousand).

Transaction Price Allocated to the Remaining Performance Obligations

The aggregate amount of transaction price allocated to the remaining performance obligation from contracts with some customers and the expected duration recognised that amounts as revenue are as follows:

	Millions of yen	*Thousands of U.S. dollars*
	March 31 2019	***March 31 2019***
Within one year	**¥ 38**	**$ 342**
Over one year	**250**	**2,252**
	¥289	**$2,603**

The Group applies the practical expedient of omitting the disclosure of information on the remaining performance obligations whose original expected duration are less than one year, since there is no transaction with individual contractual period exceeding one year except above. In addition, there are no significant amounts in consideration from contracts with customers that are not included in transaction prices.

20. Cost of Sales

	Millions of yen		Thousands of U.S. dollars
	2019	*2018*	***2019***
Raw materials	**¥16,421**	¥17,838	**$147,950**
Subcontract fees	**484**	665	**4,360**
(Increase) in products and work-in-process	**(159)**	(1,017)	**(1,432)**
Personnel expenses (refer to Note 24)	**10,797**	11,240	**97,279**
Depreciation and amortisation (refer to Note 25)	**2,931**	3,214	**26,407**
Electricity	**2,379**	2,325	**21,434**
Others	**2,641**	3,501	**23,794**
Total	**¥35,497**	¥37,768	**$319,821**

21. Selling, General and Administrative Expenses

	Millions of yen		Thousands of U.S. dollars
	2019	*2018*	***2019***
Personnel expenses (refer to Note 24)	**¥3,291**	¥3,450	**$29,651**
Depreciation and amortisation (refer to Note 25)	**240**	274	**2,162**
Commissions	**376**	422	**3,387**
Shipping charges	**679**	726	**6,117**
Travel	**296**	315	**2,666**
Welfare	**172**	165	**1,549**
Rent	**236**	237	**2,126**
Tax and dues	**201**	258	**1,810**
Repair expenses	**125**	127	**1,126**
Others	**634**	664	**5,712**
Total	**¥6,255**	¥6,642	**$56,356**

22. Research and Development Expenses

	Millions of yen		Thousands of U.S. dollars
	2019	2018	**2019**
Personnel expenses (refer to Note 24)	**¥1,066**	¥ 993	**$ 9,604**
Depreciation and amortisation (refer to Note 25)	**214**	269	**1,928**
Materials	**428**	351	**3,856**
Others	**174**	172	**1,567**
Total	**¥1,884**	¥1,787	**$16,974**

23. Other Operating Income and Expenses

	Millions of yen		Thousands of U.S. dollars
	2019	2018	**2019**
Rental income*	**¥ 94**	¥ 94	**$ 846**
Gain on sales of property, plant and equipment ("PPE")**	**915**	6	**8,243**
Government grants***	**58**	63	**522**
Gain on sales of land use right****	**1,035**	—	**9,325**
Other income	**113**	145	**1,018**
Total other operating income	**¥2,217**	¥ 310	**$19,974**
Loss on disposal of PPE	**¥5**	¥2	**$ 45**
Impairment losses of PPE	**396**	6,515	**3,567**
Depreciation of temporarily idle fixed assets	**20**	274	**180**
Depreciation of assets for rent	**61**	62	**549**
Settlement for products sold	**25**	706	**225**
Other expenses	**163**	121	**1,468**
Total other operating expenses	**¥ 672**	¥7,682	**$ 6,054**

** Rental income occurred mainly due to renting one part of a facility at a subsidiary in China for the year ended March 31, 2019 and 2018.*

*** Gain on sales of PPE occurred mainly due to sales of a facility at a subsidiary in China for the year ended March 31, 2019.*

**** Grants mainly include accounts received from national and local public entities for employment and investments in facilities and benefits received through low-interest loans using the lending system of the Bank of Japan, which are recognised in the periods when the related expenses are recognised.*

***** Gain on sales of land use right occurred because the land use right at a subsidiary in China was returned to the government for the year ended March 31, 2019.*

24. Personnel Expenses and Number of Employees

	Millions of yen		Thousands of U.S. dollars
	2019	2018	**2019**
Wages and salaries	**¥12,145**	¥12,634	**$109,424**
Pension expenses	**1,880**	1,886	**16,938**
Fringe benefits (excluding expenses related to defined benefit plans) and others	**1,129**	1,164	**10,172**
Total	**¥15,155**	¥15,685	**$136,543**

The number of employees at the end of the year is as follows:

	2019	2018
Number of employees	**3,783**	3,924

Note: The average number of temporary staff is included in number of employees.

25. Depreciation and Amortisation Expenses

	Millions of yen		Thousands of U.S. dollars
	2019	2018	**2019**
Property, plant and equipment:			
Cost of sales	**¥2,917**	¥3,197	**$26,281**
Selling, general and administrative expenses	**165**	197	**1,486**
Research and development expenses	**205**	261	**1,847**
Other operating expenses	**81**	337	**729**
Subtotal—depreciation expenses	**¥3,371**	¥3,993	**$30,372**
Intangible assets and goodwill:			
Cost of sales	**¥ 14**	¥ 16	**$ 126**
Selling, general and administrative expenses	**74**	76	**666**
Research and development expenses	**9**	8	**81**
Subtotal—amortisation expenses	**¥ 97**	¥ 101	**$ 873**
Total depreciation and amortisation expenses	**¥3,469**	¥4,094	**$31,255**

26. Financial Income and Expenses

	Millions of yen		Thousands of U.S. dollars
	2019	2018	**2019**
Interest income:			
Financial assets measured at amortised cost	**¥ 47**	¥ 49	**$ 423**
Dividend income:			
Available-for-sale financial assets	**—**	19	**—**
Financial assets measured at fair value through other comprehensive income	**15**	—	**135**
Financial assets measured at fair value through profit or loss	**6**	—	**54**
Gain on sales of other financial assets:			
Available-for-sale financial assets*	**—**	100	**—**
Financial assets measured at fair value through profit or loss	**132**	—	**1,189**
Foreign exchange gains, net	**—**	4	**—**
Total financial income	**¥201**	¥174	**$1,810**
Interest expense:			
Unwind of discount	**¥ 0**	¥ 0	**$ 0**
Financial liability measured at amortised cost	**252**	177	**2,270**
Loss on impairment of other financial assets:			
Available-for-sale financial assets	**—**	5	**—**
Financial assets measured at fair value through profit or loss	**176**	—	**1,585**
Loss arising from changes in the fair value of derivative financial instruments:			
Financial assets measured at fair value through profit or loss	**13**	10	**117**
Foreign exchange losses, net	**218**	—	**1,964**
Others	**4**	3	**36**
Total financial expenses	**¥665**	¥197	**$5,991**

** Of these amounts, ¥(95) million for the year ended March 31, 2018, was transferred from equity to profit or loss.*

27. Income Taxes

Deferred tax assets and liabilities are attributable to the following:

	Millions of yen		Thousands of U.S. dollars
	2019	2018	**2019**
Deferred tax assets:			
Accrued bonus	**¥ 17**	¥ 34	**$ 153**
Loss from devaluation of inventories	**24**	163	**216**
Impairment losses of PPE and intangible assets	**139**	4	**1,252**
Elimination of unrealised gains on inventories	**51**	63	**459**
Depreciation and amortisation	**15**	24	**135**
Tax losses carried forward	**651**	329	**5,865**
Others	**86**	57	**774**
Subtotal	**¥ 985**	¥ 677	**$ 8,874**
Offset by deferred tax liabilities within each entity	**¥(450)**	¥ (21)	**$(4,054)**
Deferred tax assets	**¥ 535**	¥ 655	**$ 4,820**
Deferred tax liabilities:			
Depreciation and amortisation	**¥(137)**	¥(164)	**$(1,234)**
Unrealised gains on other financial assets	**(44)**	(10)	**(396)**
Gain on sales of land use right and PPE	**(405)**	—	**(3,648)**
Others	**(111)**	(52)	**(1,000)**
Subtotal	**¥(699)**	¥(227)	**$(6,297)**
Offset by deferred tax assets within each entity	**¥ 450**	¥ 21	**$ 4,054**
Deferred tax liabilities	**¥(248)**	¥(205)	**$(2,234)**
Net deferred tax assets	**¥ 286**	¥ 449	**$ 2,576**

Deferred tax assets have not been recognised in respect of the following items:

	Millions of yen		Thousands of U.S. dollars
	2019	2018	**2019**
Deductible temporary differences	**¥16,994**	¥22,670	**$153,112**
Tax losses	**16,132**	16,780	**145,346**
Total	**¥33,126**	¥39,450	**$298,459**

Deferred tax assets have not been recognised in respect of these items because it is not probable that future taxable profit will be available against which the Group can utilise the benefits therefrom. The deductible temporary differences and part of tax losses do not expire under current tax legislation. The tax losses carried forward for the Company and certain subsidiaries are with the following schedule of expiration:

	Millions of yen		Thousands of U.S. dollars
	2019	2018	**2019**
The first year	**¥ 3,279**	¥ 2,596	**$ 29,543**
The second year	**1,242**	3,280	**11,190**
The third year	**538**	1,242	**4,847**
The fourth year	**1,824**	538	**16,433**
The fifth year and after	**11,498**	10,487	**103,594**

Deferred tax liabilities have not been recognised for temporary differences associated with investments in foreign subsidiaries of ¥158 million ($1,423 thousand) and ¥55 million at March 31, 2019 and 2018, respectively, as the Company has determined that the profits concerned will not be distributed in the foreseeable future.

Movement in net deferred tax assets during the year is as follows:

	Millions of yen								
	Balance March 31, 2017	Recognised in profit or loss	Recognised directly in equity	Recognised in other comprehensive income	Balance March 31, 2018	Recognised in profit or loss	Recognised directly in equity	Recognised in other comprehensive income	Balance March 31, 2019
Accrued bonus	¥ 30	¥ 3	¥—	¥—	¥ 34	**¥ (16)**	**¥—**	**¥—**	**¥ 17**
Loss from devaluation of inventories	131	32	—	—	163	**(139)**	**—**	**—**	**24**
Change in fair value of other financial assets	(7)	0	—	(3)	(10)	**(35)**	**—**	**0**	**(44)**
Impairment losses of PPE and intangible assets	270	(266)	—	—	4	**135**	**—**	**—**	**139**
Elimination of unrealised gains on inventories	105	(41)	—	—	63	**(12)**	**—**	**—**	**51**
Depreciation and amortisation	(169)	30	—	—	(139)	**17**	**—**	**—**	**(122)**
Tax losses carried forward	565	(236)	—	—	329	**321**	**—**	**—**	**651**
Gain on sales of land use right and PPE	—	—	—	—	—	**(405)**	**—**	**—**	**(405)**
Others	(26)	30	—	—	4	**(29)**	**—**	**—**	**(25)**
Total	¥900	¥(447)	¥—	¥(3)	¥449	**¥(164)**	**¥—**	**¥ 0**	**¥286**

Note: The difference between total of "Recognised in profit or loss" and "Deferred tax expenses / (benefits)" is due to exchange rate fluctuations.

	Thousands of U.S. dollars				
	Balance March 31, 2018	Recognised in profit or loss	Recognised directly in equity	Recognised in other comprehensive income	Balance March 31, 2019
Accrued bonus	$ 306	**$ (144)**	**$—**	**$—**	**$ 153**
Loss from devaluation of inventories	1,468	**(1,252)**	**—**	**—**	**216**
Change in fair value of other financial assets	(90)	**(315)**	**—**	**0**	**(396)**
Impairment losses of PPE and intangible assets	36	**1,216**	**—**	**—**	**1,252**
Elimination of unrealised gains on inventories	567	**(108)**	**—**	**—**	**459**
Depreciation and amortisation	(1,252)	**153**	**—**	**—**	**(1,099)**
Tax losses carried forward	2,964	**2,892**	**—**	**—**	**5,865**
Gain on sales of land use right and PPE	—	**(3,648)**	**—**	**—**	**(3,648)**
Others	36	**(261)**	**—**	**—**	**(225)**
Total	$4,045	**$(1,477)**	**$—**	**$ 0**	**$2,576**

Income taxes are composed of the following:

	Millions of yen		Thousands of U.S. dollars
	2019	2018	**2019**
Current tax expenses:			
Current year	**¥ 47**	¥ 122	**$ 423**
Deferred tax expenses/ (benefits):			
Origination and reversal of temporary differences	**190**	(3,258)	**1,711**
Effect of change in tax rate	**—**	25	**—**
Benefit of tax losses recognised	**(307)**	220	**(2,766)**
Effect of unrecognised tax losses or temporary differences	**265**	3,451	**2,387**
Total	**147**	438	**1,324**
Total income tax expenses	**¥194**	¥ 561	**$1,747**

Note: Current tax expenses include the previously unrecognised tax losses, and it decreased the current tax expenses by ¥23 million ($207 thousand) and ¥69 million at March 31, 2019 and 2018, respectively.

Reconciliation between tax expense and the product of accounting profit or loss multiplied by the applicable tax rate is as follows:

	Millions of yen		Thousands of U.S. dollars
	2019	2018	**2019**
Income before income taxes	**¥ (56)**	¥(9,640)	**$ (504)**
Taxes at the Company's domestic tax rate*	**(17)**	(3,036)	**(153)**
Expenses not deductible for tax purposes	**55**	57	**495**
Non-taxable income	**(1)**	(1)	**(9)**
Impact of different tax rates in other countries	**(100)**	47	**(900)**
Effect of unrecognised tax losses or temporary differences	**265**	3,451	**2,387**
Effect of change in tax rate	**—**	25	**—**
Others	**(6)**	17	**(54)**
Total income tax expenses	**¥194**	¥ 561	**$1,747**

** The Company is subject to a number of income taxes that, in the aggregate, result in an applicable tax rate in Japan of approximately 31.3% and 31.5% for the years ended March 31, 2019 and 2018, respectively.*

28. Earnings per Share

	Millions of yen		Thousands of U.S. dollars
	2019	2018	**2019**
Net loss attributable to ordinary shareholders	**¥(251)**	¥(10,202)	**$(2,261)**

	Number of shares	
	2019	2018
Weighted-average number of shares outstanding	**19,624,946**	19,625,330

	Yen		U.S. dollars
	2019	2018	**2019**
Basic loss per share	**¥(12.80)**	¥(519.87)	**$(0.11)**

Notes: 1. Basic loss per share is calculated by dividing the net loss for the period attributable to ordinary shareholders by the weighted-average number of ordinary shares outstanding during the period.
2. Diluted earnings loss per share is not disclosed because there are no potential ordinary shares which have dilutive effects.

29. Financial Instruments

Exposure to credit, liquidity, interest rate and currency risk arises in the normal course of the Group's business.

Credit risk

Credit risk is the financial risk of loss which the Group take if customer or counterparty of financial instruments cannot acquit their contractual obligation.

Management has a credit policy of risk management in place and the exposure to credit risk is monitored on an ongoing basis. Credit evaluations are performed on all customers requiring credit over a certain amount based on the report by credit research companies. The Group does not require collateral in respect of financial assets at the consolidated statement of financial position date.

Financial transactions of cash and cash equivalents and derivative financial instruments are with creditworthy financial institutions, so management estimates that the credit risk of these accounts is insignificant. Furthermore, other receivables and long-term other receivables are incurred on transactions with creditworthy financial institutions, and there is little credit risk. A loss allowance is measured at the same amount of expected credit loss incurred within twelve months to financial assets measured at amortised cost without trade receivables. However, according to the future economic conditions, past accomplishments rate and so on, a loss allowance is anticipated no importance and not appropriated.

At the consolidated statement of financial position date, there were no significant concentrations of credit risk.

The maximum exposure to credit risk is represented by the carrying amount of each financial asset, including derivative financial instruments, in the consolidated statements of financial position. The maximum exposure to credit risk at the consolidated statement of financial position date was:

	Millions of yen		Thousands of U.S. dollars
	2019	2018	**2019**
Trade receivables	**¥10,605**	¥10,878	**$95,549**

The maximum exposure to credit risk for trade receivables at the reporting date by geographic region was:

	Millions of yen		Thousands of U.S. dollars
	2019	2018	**2019**
Domestic	**¥ 3,671**	¥ 3,853	**$33,075**
Asia	**4,268**	4,565	**38,453**
Europe	**1,839**	1,679	**16,569**
North America	**825**	779	**7,433**
Total	**¥10,605**	¥10,878	**$95,549**

The aging of trade receivables at the reporting date was:

	Millions of yen	
March 31, 2018	Gross	Impairment
Not past due	¥ 9,980	¥—
Past due 0–30 days	660	—
Past due 31–90 days	208	—
Past due 91–365 days	41	12
Past due more than 365 days	42	41
Total	¥10,933	¥54

The Group recognises a loss allowance to financial assets measured at amortised cost including trade receivables through measurement of expected credit loss in view of collectability, significant increase of credit risk and so on. On the other hand, all trade receivables of the Group do not include significant financial components, so a loss allowance is measured at an amount equal to the lifetime expected credit loss without consideration to significant increase of credit risk. All trade receivables are regarded as one group, because they are receivables from corporate customers and their characteristics of credit risk are almost same. A loss allowance of trade receivables is estimated by the provision ratio which takes the historical credit loss experience and future conditions into account.

The group regards trade receivables as default under following condition:
(a) Significant financial difficulty of the counterparty
(b) It is becoming probable that the counterparty will enter bankruptcy or other financial reorganisation

If trade receivables become default, they are regarded as credit-impaired financial assets and measured individually with considering past accomplishments of credit loss, future collectable amount and so on for each individual receivable.

The amount of the allowance for trade receivables is recognised unless the Group is convinced that it is impossible to recovery the amount of trade receivables. In case the Group estimates that it can't expect to recovery the financial assets, the gross carrying amount of the financial assets is written off directly. Credit-impaired financial assets at March 31, 2019 are ¥25 million ($225 thousand).

The movement in the allowance for doubtful receivables during the year was as follows:

	Millions of yen		Thousands of U.S. dollars
	2019	2018	**2019**
At April 1	**¥54**	¥55	**$486**
Provision used during the year	**—**	0	**—**
Reversal	**(0)**	—	**(0)**
Uncollectibility	**(15)**	—	**(135)**
Currency translation differences	**1**	(1)	**9**
At March 31	**¥39**	¥54	**$351**

Liquidity risk

Liquidity risk is the risk that the Group will not be able to meet its financial obligations as they fall due. The Group manages liquidity risk by holding appropriate reserves, ensuring that it has access to credit facilities at financial institutions, and continuously monitoring forecasts and actual cash flows.

The maturity profile of financial assets and liabilities is also reconciled on a regular basis.

The following are the contractual maturities of financial liabilities, including interest payments and excluding the impact of netting agreements.

	Millions of yen							
March 31, 2019	*Carrying amount*	*Contractual cash flows*	*Within one year*	*The second year*	*The third year*	*The fourth year*	*The fifth year*	*Thereafter*
Non-derivative financial liabilities:								
Short-term loans and borrowings	**¥ 6,508**	**¥ (6,581)**	**¥ (6,581)**	**¥ —**	**¥ —**	**¥ —**	**¥ —**	**¥ —**
Long-term loans and borrowings with fixed rates*	**16,896**	**(17,030)**	**(7,210)**	**(5,000)**	**(2,534)**	**(1,507)**	**(777)**	**—**
Long-term loans and borrowings with floating rates	**8,613**	**(8,669)**	**(3,592)**	**(2,701)**	**(1,550)**	**(724)**	**(100)**	**—**
Finance lease obligations with fixed rates	**83**	**(86)**	**(29)**	**(24)**	**(16)**	**(7)**	**(6)**	**(3)**
Trade and other payables	**8,860**	**(8,860)**	**(8,627)**	**—**	**—**	**—**	**—**	**(232)**
Derivative financial liabilities:								
Forward exchange contracts	**21**	**(21)**	**(21)**	**—**	**—**	**—**	**—**	**—**
Interest rate swap	**53**	**(53)**	**(53)**	**—**	**—**	**—**	**—**	**—**
Currency swap	**37**	**(37)**	**(37)**	**—**	**—**	**—**	**—**	**—**
Total	**¥41,074**	**¥(41,340)**	**¥(26,153)**	**¥(7,727)**	**¥(4,100)**	**¥(2,239)**	**¥(883)**	**¥(235)**

** Long-term loans and borrowings with fixed rates include long-term loans and borrowings which rates are practically fixed by transaction of interest rate swap.*

	Millions of yen							
March 31, 2018	*Carrying amount*	*Contractual cash flows*	*Within one year*	*The second year*	*The third year*	*The fourth year*	*The fifth year*	*Thereafter*
Non-derivative financial liabilities:								
Short-term loans and borrowings	¥ 7,274	¥ (7,313)	¥ (7,313)	¥ —	¥ —	¥ —	¥ —	¥ —
Long-term loans and borrowings with fixed rates	15,024	(15,086)	(6,378)	(5,064)	(2,958)	(684)	—	—
Long-term loans and borrowings with floating rates	7,546	(7,585)	(2,989)	(2,417)	(1,533)	(466)	(178)	—
Finance lease obligations with fixed rates	90	(94)	(29)	(25)	(20)	(12)	(3)	(2)
Trade and other payables	10,124	(10,124)	(9,892)	—	—	—	—	(232)
Derivative financial liabilities:								
Forward exchange contracts	3	(3)	(3)	—	—	—	—	—
Currency swap	24	(24)	(24)	—	—	—	—	—
Total	¥40,089	¥(40,233)	¥(26,631)	¥(7,507)	¥(4,512)	¥(1,163)	¥(182)	¥(235)

	Thousands of U.S. dollars							
March 31, 2019	*Carrying amount*	*Contractual cash flows*	*Within one year*	*The second year*	*The third year*	*The fourth year*	*The fifth year*	*Thereafter*
Non-derivative financial liabilities:								
Short-term loans and borrowings	**$ 58,635**	**$ (59,293)**	**$ (59,293)**	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**
Long-term loans and borrowings with fixed rates	**152,229**	**(153,437)**	**(64,960)**	**(45,049)**	**(22,830)**	**(13,577)**	**(7,000)**	**—**
Long-term loans and borrowings with floating rates	**77,601**	**(78,106)**	**(32,363)**	**(24,335)**	**(13,965)**	**(6,523)**	**(900)**	**—**
Finance lease obligations with fixed rates	**747**	**(774)**	**(261)**	**(216)**	**(144)**	**(63)**	**(54)**	**(27)**
Trade and other payables	**79,827**	**(79,827)**	**(77,727)**	**—**	**—**	**—**	**—**	**(2,090)**
Derivative financial liabilities:								
Forward exchange contracts	**189**	**(189)**	**(189)**	**—**	**—**	**—**	**—**	**—**
Interest rate swap	**477**	**(477)**	**(477)**	**—**	**—**	**—**	**—**	**—**
Currency swap	**333**	**(333)**	**(333)**	**—**	**—**	**—**	**—**	**—**
Total	**$370,069**	**$(372,465)**	**$(235,633)**	**$(69,618)**	**$(36,940)**	**$(20,172)**	**$(7,955)**	**$(2,117)**

At March 31, 2019, the Group had ¥18,711 million ($168,582 thousand) of total lines of credit, of which ¥6,508 million ($58,635 thousand) was used and ¥3,311 million ($29,831 thousand) was unused and available for borrowing on an uncommitted basis.

At March 31, 2018, the Group had ¥21,305 million of total lines of credit, of which ¥7,274 million was used and ¥7,305 million was unused and available for borrowing on an uncommitted basis.

Interest rate risk

The Company controls and monitors debt financing of the Group and prohibits entering into a debt contract without obtaining approval by the head office for the terms and amount.

The Company has a policy of considering economic conditions at the time of the contract and future economic conditions when selecting fixed or floating interest rates. Also, the Company consistently monitors the effectiveness of their selection. The Group uses interest rate swap to hedge the risk of cash flow fluctuation.

Sensitivity analysis for variable rate instruments

A 0.1% fluctuation in interest rates at the reporting date would have increased / (decreased) equity and profit or loss by the amounts shown below. This analysis assumes that all other variables, in particular foreign currency rates, remain constant.

	Effect in millions of yen			
	0.1% increase		*0.1% decrease*	
March 31, 2019	*Equity*	*Loss*	*Equity*	*Profit*
Variable rate instruments*	**¥(10)**	**¥(10)**	**¥10**	**¥10**

** These instruments except long-term loans and borrowings which rates are practically fixed by transaction of interest rate swap.*

	Effect in millions of yen			
	0.1% increase		*0.1% decrease*	
March 31, 2018	*Equity*	*Loss*	*Equity*	*Profit*
Variable rate instruments*	¥(10)	¥(10)	¥10	¥10

** These instruments except long-term loans and borrowings which rates are practically fixed by transaction of interest rate swap.*

	Effect in thousands of U.S. dollars			
	0.1% increase		*0.1% decrease*	
March 31, 2019	*Equity*	*Loss*	*Equity*	*Profit*
Variable rate instruments	**$(90)**	**$(90)**	**$90**	**$90**

Foreign currency risk

The Group experiences foreign currency risk mainly on sales that are denominated in a currency other than yen. The currency giving rise to this risk is primarily the U.S. dollar. The Group economically hedges at least 80% of all trade receivables denominated in a foreign currency. The Group uses forward exchange contracts to hedge its foreign currency risk. Most of the forward exchange contracts have maturities of less than four months. In respect of other monetary assets and liabilities held in currencies other than yen, the Group ensures that the net exposure is kept to an acceptable level by buying or selling foreign currencies at spot rates where necessary to address short-term imbalances. Foreign currency risks also arise on loan payables and are economically hedged by currency swaps.

Changes in the fair value of forward exchange contracts and currency swaps that economically hedge monetary assets and liabilities, firm commitments or forecasted transactions, in foreign currencies and for which no hedge accounting is applied are recognised in the consolidated statements of comprehensive income. Both the changes in fair value of the forward contracts and the foreign exchange gains and losses relating to the monetary items are recognised as part of "Financial Income and Expenses" (refer to Note 26).

Exposure to currency risk

The Group's exposure to main foreign currency risk was as follows based on thousands of original amounts:

March 31, 2019	*US$*	*GBP*	*EUR*	*RMB*	*MYR*	*SG$*
Trade receivables	**33,891**	**29**	**2,247**	**42,683**	**2,643**	**—**
Trade payables	**(1,005)**	**(316)**	**(161)**	**(54,558)**	**(2,532)**	**(0)**
Short-term loans and borrowings	**(19,000)**	**—**	**—**	**—**	**—**	**—**
Gross consolidated statement of financial position exposure	**13,885**	**(287)**	**2,085**	**(11,874)**	**110**	**(0)**
Estimated forecast sales	**10,200**	**—**	**590**	**6,876**	**—**	**—**
Estimated forecast purchases	**(1,750)**	**—**	**—**	**(35,000)**	**—**	**—**
Gross exposure	**8,450**	**—**	**590**	**(28,124)**	**—**	**—**
Forward exchange contracts	**(41,137)**	**—**	**(3,332)**	**98,881**	**—**	**—**
Net exposure	**(18,801)**	**(287)**	**(656)**	**58,882**	**110**	**(0)**

March 31, 2018	*US$*	*GBP*	*EUR*	*RMB*	*MYR*	*SG$*
Trade receivables	37,112	3	971	48,953	1,750	—
Trade payables	(584)	(177)	(210)	(62,735)	(4,824)	(3)
Short-term loans and borrowings	(12,000)	—	—	—	—	—
Gross consolidated statement of financial position exposure	24,527	(173)	761	(13,782)	(3,073)	(3)
Estimated forecast sales	11,500	—	320	11,230	—	—
Estimated forecast purchases	(2,456)	—	—	(34,000)	—	—
Gross exposure	9,044	—	320	(22,770)	—	—
Forward exchange contracts	(48,221)	—	(1,686)	97,925	—	—
Net exposure	(14,649)	(173)	(605)	61,373	(3,073)	(3)

Note: The significant exchange rates applied during the years are described in Note 3 (b) (ii).

Sensitivity analysis

A 10% appreciation of the yen against the U.S. dollar at March 31 would have increased / (decreased) equity and profit or loss by the amounts shown below. This analysis assumes that all other variables, in particular interest rates, remain constant.

	Effect in millions of yen	
March 31, 2019	*Equity*	*Loss*
US$	**¥(603)**	**¥(603)**

	Effect in millions of yen	
March 31, 2018	*Equity*	*Loss*
US$	¥(565)	¥(565)

	Effect in thousands of U.S. dollars	
March 31, 2019	*Equity*	*Loss*
US$	**$(5,432)**	**$(5,432)**

A 10% depreciation of the yen against the U.S. dollar at March 31 would have had the equal but opposite effect to the amounts shown above, on the basis that all other variables remain constant.

Risk of equity instrument price fluctuations

The Group owns listed securities and mutual funds and is exposed to the risks of price fluctuations of equity instruments. The Group regularly conducts financial evaluations of market prices and issuers and conducts ongoing reviews of holdings of these shares.

Sensitivity analysis for equity instrument price fluctuations

A 10% fluctuation of the market price of listed securities and mutual funds at March 31 would have increased / (decreased) equity and profit or loss by the amounts shown below. This analysis assumes that all other variables remain constant.

	Effect in millions of yen			
	10% increase		*10% decrease*	
March 31, 2019	*Equity*	*Profit*	*Equity*	*Loss*
Listed securities and mutual funds	**¥92**	**¥62**	**¥(95)**	**¥(64)**

	Effect in millions of yen			
	10% increase		*10% decrease*	
March 31, 2018	*Equity*	*Profit*	*Equity*	*Loss*
Listed securities and mutual funds	¥81	¥0	¥(92)	¥(0)

	Effect in thousands of U.S. dollars			
	10% increase		*10% decrease*	
March 31, 2019	*Equity*	*Profit*	*Equity*	*Loss*
Listed securities and mutual funds	**$828**	**$558**	**$(855)**	**$(576)**

Fair Value

The fair values of financial assets and liabilities, together with the carrying amounts shown in the consolidated statements of financial position, are as follows:

	Millions of yen	
March 31, 2019	*Carrying amounts*	*Future value*
Assets measured at fair value:		
Other financial assets	**¥ 1,315**	**¥ 1,315**
Derivative assets	**8**	**8**
Assets measured at amortised cost:		
Cash and cash equivalents	**8,231**	**8,231**
Trade and other receivables	**12,447**	**12,447**
Other financial assets	**192**	**192**
Liabilities measured at fair value:		
Derivative liabilities	**112**	**112**
Liabilities measured at amortised cost:		
Trade and other payables	**8,860**	**8,860**
Borrowings without lease obligations	**32,019**	**32,026**

	Millions of yen	
March 31, 2018	*Carrying amounts*	*Future value*
Assets measured at fair value:		
Available-for-sale financial assets	¥ 1,091	¥ 1,091
Financial assets designated at fair value through profit or loss	223	223
Assets measured at amortised cost:		
Cash and cash equivalents	6,851	6,851
Trade and other receivables	11,160	11,160
Liabilities measured at fair value:		
Financial liabilities designated at fair value through profit or loss	28	28
Liabilities measured at amortised cost:		
Trade and other payables	10,124	10,124
Loans and borrowings	29,936	29,922

	Thousands of U.S. dollars	
March 31, 2019	*Carrying amounts*	*Future value*
Assets measured at fair value:		
Other financial assets	**$ 11,847**	**$ 11,847**
Derivative assets	**72**	**72**
Assets measured at amortised cost:		
Cash and cash equivalents	**74,159**	**74,159**
Trade and other receivables	**112,145**	**112,145**
Other financial assets	**1,729**	**1,729**
Liabilities measured at fair value:		
Derivative liabilities	**1,009**	**1,009**
Liabilities measured at amortised cost:		
Trade and other payables	**79,827**	**79,827**
Borrowings without lease obligations	**288,485**	**288,548**

Basis for determining fair value

• Other financial assets measured at fair value

The fair values of other financial assets are mainly based on quoted market price.

• Derivative assets and liabilities

The fair values of derivative financial instruments were estimated based on quotes from the financial institutions.

• Assets measured at amortised cost and trade and other payables

The fair value of assets measured at amortised cost and trade and other payables approximate fair values because they are settled in the short term. Therefore, it is regarded as fair values.

• Loans and borrowings

The carrying amounts of short-term loans and borrowings approximate fair values because they are settled in the short term. The fair value of long-term loans and borrowings is estimated based on the discounted amounts of future cash flows using the Group's current borrowing rates for similar liabilities and classified level 2.

Fair value hierarchy

For financial instruments that are measured at fair value, the Company classifies fair value measurements into a three-level fair value hierarchy by reference to the observability and significance of the inputs used in making the measurement.

• Level 1

Quoted prices in active markets for identical assets or liabilities

• Level 2

Not Level 1 and observable inputs for the assets or liabilities

• Level 3

Unobservable inputs for the assets or liabilities that are not based on observable market data

The Group recognises transfers between the levels at the consolidated statement of financial position date.

The details of financial assets or liabilities continuously designated at fair value at the end of the reporting period were as follows:

	Millions of yen				*Thousands of U.S. dollars*			
March 31, 2019	*Level 1*	*Level 2*	*Level 3*	*Total*	*Level 1*	*Level 2*	*Level 3*	*Total*
Financial assets measured at fair value through profit or loss:								
Securities and mutual funds	**¥674**	**¥ —**	**¥ —**	**¥ 674**	**$6,072**	**$ —**	**$ —**	**$ 6,072**
Golf memberships	**—**	**103**	**—**	**103**	**—**	**928**	**—**	**928**
Derivative assets	**—**	**8**	**—**	**8**	**—**	**72**	**—**	**72**
Financial assets measured at fair value through other comprehensive income:								
Securities	**310**	**—**	**221**	**532**	**2,793**	**—**	**1,991**	**4,793**
Golf memberships	**—**	**4**	**—**	**4**	**—**	**36**	**—**	**36**
Total assets	**¥985**	**¥116**	**¥221**	**¥1,324**	**$8,874**	**$1,045**	**$1,991**	**$11,929**
Financial liabilities measured at fair value through profit or loss:								
Derivative liabilities	**¥ —**	**¥ 58**	**¥ —**	**¥ 58**	**$ —**	**$522**	**$ —**	**$ 522**
Financial liabilities designated as hedge instruments:								
Derivative liabilities	**—**	**53**	**—**	**53**	**—**	**477**	**—**	**477**
Total liabilities	**¥ —**	**¥112**	**¥ —**	**¥ 112**	**$ —**	**$1,009**	**$ —**	**$ 1,009**

Note: There is no transfer for Level 1, Level 2 and Level 3.

	Millions of yen			
March 31, 2018	*Level 1*	*Level 2*	*Level 3*	*Total*
Available-for-sale financial assets	¥971	¥119	¥—	¥1,091
Financial assets designated at fair value through profit or loss	—	223	—	223
Total assets	¥971	¥342	¥—	¥1,314
Financial liabilities designated at fair value through profit or loss	¥ —	¥ 28	¥—	¥ 28
Total liabilities	¥ —	¥ 28	¥—	¥ 28

Note: There is no transfer between Level 1 and Level 2.

Marketable securities measured at cost aren't included in available-for- sale financial assets.

Financial assets for which fair value measurement is based on level 1 input are measured at unadjusted market prices in active markets where there are sufficient volume and frequency of transactions.

Financial assets and liabilities for which fair value measurement is based on level 2 input are measured at market price of the assets and liabilities in inactive markets. Forward exchange contracts and foreign currency swap contracts are measured based on observable market data, such as foreign currency exchange rates and interest rates provided by financial institutions.

Financial assets for which fair value measurement is based on level 3 input comprise unlisted stock, and significant input which is not observable is amount of net investment per equity. Fair value is measured at appropriate appraisal method through the best information which is available such as amount of net investment. Amount of net investment per equity for the financial assets is ¥318 million. Increase of it makes fair value increase, and decrease of it makes fair value decrease.

Fair value of financial assets for which fair value measurement is based on level 3 are measured at appraisal method of the target assets and liabilities decided by responsible departments which follow measuring policies and procedures admitted by appropriate authorities. The result of it is confirmed and approved by the general manager of financial department. There is no significant variation for the year ended March 31, 2019.

Equity instrument measured at fair value through other comprehensive income

The Group holds securities of corporations which are related on business. These equity instruments are assigned as financial assets measured at fair value through other comprehensive income because of holding purpose to maintain and strength relationships with them.

These investments were categorized as available-for-sale financial assets for the year ended March 31, 2018.

The major issues and fair values

March 31, 2019	*Millions of yen*	*Thousands of U.S. dollars*
Listed securities:		
Resona Holdings, Inc.	**¥130**	**$1,171**
Mitsubishi UFJ Financial Group	**66**	**594**
Nisshinbo Holdings Inc.	**62**	**558**
Others	**51**	**459**
Unlisted securities:		
Daiei Real Estate & Development Co., Ltd.	**184**	**1,657**
Others	**37**	**333**
Total	**¥532**	**$4,793**

Derecognised equity instrument measured at fair value through other comprehensive income

There is no derecognised equity instrument measured at fair value through other comprehensive income during the year.

Dividend received

Breakdown of dividend received recognised by equity instrument measured at fair value through other comprehensive income is as follows:

March 31, 2019	*Millions of yen*	*Thousands of U.S. dollars*
Financial instrument in derecognition during the year	**¥ —**	**$ —**
Financial instrument at March 31	**15**	**135**
Total	**¥15**	**$135**

Offset of financial assets and liabilities

Financial assets and liabilities hold authority which has legal force to set-off recognised amounts. If they intended to carry out achievement of assets and settlement of liabilities at the same time or to settle by net, they are set-off on the consolidated financial statement of financial position and indicated net basis.

Set-off amount on the consolidated financial statement of financial position is not important for the year ended March 31, 2019.

Cash flow hedge

The Group uses interest rate swap to hedge the risk of cash flow fluctuation due to interest fluctuation for loans and borrowings, and it is designated as hedging instrument of cash flow hedge. Notional account of hedged item and hedging instrument are the same amount, and the ratio of it is 1:1. It is because the Group intends to receipt floating interest rates and pay fixed interest rates for the same notional account with hedged item.

The Group determines the existence of an economic relationship between the hedging instrument and hedged item based on the reference interest rates, tenors, repricing dates and maturities and the notional or par amounts. In addition, the Group assesses whether the derivatives designated in each hedging relationship is expected to be effective in offsetting changes in cash flows of the hedged item judging if the derivatives match terms of hedge item. The critical terms of the hedging instrument and the hedged item match in hedging relationships which the Group applies hedge accounting. Because of it, the main source of hedge ineffectiveness in the hedging relationships is the effect of the counterparties' and the Group's own credit risk on the fair value of the interest rate swap contract, which is not reflected in the change in the fair value of the hedged cash flows attributable to the change in interest rates. There is no hedge ineffectiveness for the year ended March 31, 2019.

Information about items designated as heading instrument

The amount of items designated as hedging instrument is as follows:

	Millions of yen						
				Carrying amount		*The change in fair value of hedging instrument used as basis to recognise hedge ineffectiveness*	*Line item in the consolidated financial statements of financial position where the hedging instrument is included*
As of March 31, 2019	*Nominal amount*	*Nominal amount over one year*	*Average fixed rate*	*Assets*	*Liabilities*		
Interest rate risk							
Interest rate swap	**¥6,300**	**¥4,900**	**0.77%**	**¥—**	**¥53**	**¥(63)**	**Derivative liabilities**

	Thousands of U.S. dollars						
				Carrying amount		*The change in fair value of hedging instrument used as basis to recognise hedge ineffectiveness*	*Line item in the consolidated financial statements of financial position where the hedging instrument is included*
As of March 31, 2019	*Nominal amount*	*Nominal amount over one year*	*Average fixed rate*	*Assets*	*Liabilities*		
Interest rate risk							
Interest rate swap	**$56,761**	**$44,148**	**0.77%**	**$—**	**$477**	**$(567)**	**Derivative liabilities**

Information about items designated as hedged item

The amount of items designated as hedged items is as follows:

	Millions of yen		
As of March 31, 2019	*The change in fair value of hedged item used as basis to recognise hedge ineffectiveness*	*Cash flow hedge reserve for continuous hedge*	*Cash flow hedge reserve from hedging relationships for which hedge accounting is no longer applied*
Interest rate risk			
Bank loans with floating rates	**¥63**	**¥(53)**	**¥—**

As of March 31, 2019	Thousands of U.S. dollars		
	The change in fair value of hedged item used as basis to recognise hedge ineffectiveness	Cash flow hedge reserve for continuous hedge	Cash flow hedge reserve from hedging relationships for which hedge accounting is no longer applied
Interest rate risk			
Bank loans with floating rates	**$567**	**$(477)**	**$—**

Effect that hedge accounting has had on the consolidated statements of comprehensive income

Effect that hedge accounting has had on the consolidated statements of comprehensive income is as follows:

As of March 31, 2019	Millions of yen		
	The hedging profit or loss recognised in other comprehensive income during reporting period	The amount reclassified from cash flow hedge reserve to profit or loss as reclassification adjustments	Line item in the consolidated statements of comprehensive income where the reclassification adjustments is included
Interest rate risk			
Interest rate swap	**¥(63)**	**¥10**	**Financial expenses**

As of March 31, 2019	Thousands of U.S. dollars		
	The hedging profit or loss recognised in other comprehensive income during reporting period	The amount reclassified from cash flow hedge reserve to profit or loss as reclassification adjustments	Line item in the consolidated statements of comprehensive income where the reclassification adjustments is included
Interest rate risk			
Interest rate swap	**$(567)**	**$90**	**Financial expenses**

Fluctuation of other components of equity

	Millions of yen	Thousands of U.S. dollars
	2019	**2019**
At April 1	**¥ —**	**$ —**
Change in fair value:		
Interest rate risk of bank loans with floating rates	**(63)**	**(567)**
Amount reclassified to profit or loss	**10**	**90**
At March 31	**¥(53)**	**$(477)**

Capital management

The board of the Company aims to maximise the corporate value by balancing the return on capital and healthy financial position of the Group using equity and debt finance. ROE, which the Company defines as net income divided by total equity, and the Debt/Equity Ratio, which the Company defines as total liabilities divided by total equity, are used as management performance indexes, which the board monitors.

For the years ended March 31, 2019 and 2018, ROE amounted to (1.7)% and (50.6)%, and the Debt/Equity Ratio amounted to 312.8% and 302.5%, respectively.

From time to time, the Company purchases its own shares on the market; the timing of these purchases depends on market prices.

There were no changes in the Group's approach to capital management during the year.

Neither the Company nor any of its subsidiaries are subject to externally imposed capital requirements.

30. Operating Leases

The Group leases office space and motor vehicles under various operating leases. Certain contracts contain renewal options for various periods of time.

Total operating lease expenses recognised in profit or loss were ¥252 million ($2,270 thousand) and ¥228 million for the years ended March 31, 2019 and 2018, respectively.

These operating lease expenses are recorded as selling, general and administrative expenses.

31. Related Party Transactions

Compensations to the members of the board of directors is as follows:

	Millions of yen		Thousands of U.S. dollars
	2019	2018	**2019**
Short-term employee benefits	**¥115**	¥168	**$1,036**

32. Provisions

	Millions of yen			Thousands of U.S. dollars
	2019			2019
	Asset retirement obligation	Settlement for products sold	Total	Total
At April 1	**¥52**	**¥587**	**¥639**	**$5,757**
Provision made during the year	**—**	**25**	**25**	**225**
Provision used during the year	**—**	**(191)**	**(191)**	**(1,720)**
Unwind of discount	**0**	**0**	**0**	**0**
Currency translation differences	**—**	**(14)**	**(14)**	**(126)**
At March 31	**¥52**	**¥407**	**¥459**	**$4,135**

Asset retirement obligation

The Company made a provision for asset retirement obligation in respect of the Company's obligation to the landlord to dismantle and remove leasehold improvements from a leased office at the end of the lease contract. Considering the long-term nature of the liability, the major uncertainties are the cost that will be incurred and the time the lease contract ends. The Company has estimated the cost using an estimate provided by a third party and the lease period in consideration of that of the Company's former office and the useful life of the furniture and fixtures attached to the office. The provision has been calculated using a discount rate 0.8%.

Settlement for products sold

The Company made a provision for settlement for products sold regarding the damage incurred by customers attributed to the Company's products.

The provision has been determined based on management's estimate of the likely settlement amount. The provision has been calculated using a discount rate 0.3%.

33. List of Significant Consolidated Subsidiaries

Entity	Place of incorporation	Principal activities	Ownership interest
Furukawa NDK Co., Ltd.	Japan	Manufacturing	100.0%
Hakodate NDK Co., Ltd.	Japan	Manufacturing	100.0%
Niigata NDK Co., Ltd.	Japan	Manufacturing	100.0%
NDK Holdings USA, Inc.	U.S.A.	Holding company	100.0%
NDK America, Inc.	U.S.A.	Sales	100.0%
NDK Crystal Asia Pte. Ltd.	Singapore	Sales	100.0%
NDK Europe Ltd.	United Kingdom	Sales	100.0%
NDK Electronics (HK) Limited	Hong Kong	Sales	100.0%
Asian NDK Crystal Sdn. Bhd.	Malaysia	Manufacturing	100.0%
NDK Quartz Malaysia Sdn. Bhd.	Malaysia	Manufacturing	100.0%
Suzhou NDK Co., Ltd.	China	Manufacturing	100.0%
Suzhou NDK Trading Co., Ltd.	China	Sales	100.0%
NDK-Electronics Shanghai Co., Ltd.	China	Sales	100.0%

KPMG

Independent Auditor's Report

To the Board of Directors of Nihon Dempa Kogyo Co., Ltd.:

We have audited the accompanying consolidated financial statements of Nihon Dempa Kogyo Co., Ltd. and its consolidated subsidiaries , which comprise the consolidated statements of financial position as at March 31, 2019, and the consolidated statements of comprehensive income, changes in equity and cash flows for the year then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

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, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

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

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

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

Opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of Nihon Dempa Kogyo Co., Ltd. and its consolidated subsidiaries as at March 31, 2019, and their financial performance and cash flows for the year then ended in accordance with International Financial Reporting Standards.

Convenience Translation

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

KPMG AZSA LLC

June 18, 2019
Tokyo, Japan

Crystal Bridge to the Future

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