Nabtesco
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Nabtesco Value Report 2019

Integrated Report
FY Ended December 31, 2019

Appendix

Consolidated Financial Statements

1 Consolidated financial statements

(1) Consolidated statement of financial position

As of December 31, 2019 and 2018

(Millions of yen)

	Note	2019	2018
Assets			
Current assets			
Cash and cash equivalents	6	58,686	54,039
Trade receivables	7,20	69,175	74,952
Contract assets	22	1,000	1,650
Other receivables	7	1,300	1,643
Inventories	8	41,257	43,592
Other financial assets	20	4,752	280
Other current assets		2,984	2,969
Total current assets		179,154	179,124
Non-current assets			
Property, plant and equipment	9	87,083	80,573
Intangible assets	10	5,127	5,076
Right-of-use assets	12	9,004	—
Goodwill	10,11	14,161	15,512
Investment property	13	3,928	5,382
Investments accounted for using the equity method	14	31,952	29,641
Other financial assets	20	11,210	9,558
Deferred tax assets	19	1,868	2,012
Other non-current assets		1,072	1,690
Total non-current assets		165,404	149,443
Total assets		344,558	328,568

(Millions of yen)

	Note	2019	2018
Liabilities and equity			
Liabilities			
Current liabilities			
Trade payables	15,20	45,021	50,297
Contract liabilities	22	5,579	5,232
Bonds and borrowings	17,20	30,719	34,067
Other payables	15,20	14,405	11,809
Income taxes payable		4,040	3,479
Provisions	16	1,162	1,625
Lease liabilities	17,20	2,236	—
Other financial liabilities	20	13	—
Other current liabilities		6,439	6,048
Total current liabilities		109,614	112,558
Non-current liabilities			
Bonds and borrowings	17,20	13,217	11,243
Lease liabilities	17,20	6,568	—
Net defined benefit liability	18	9,569	9,142
Deferred tax liabilities	19	4,540	4,881
Other non-current liabilities		1,916	1,490
Total non-current liabilities		35,810	26,755
Total liabilities		145,424	139,313
Equity			
Share capital	21	10,000	10,000
Share premium	21	14,932	15,096
Retained earnings	21	163,794	155,133
Treasury shares	21	(2,536)	(2,903)
Other components of equity	21	1,208	1,377
Equity attributable to owners of the parent		187,398	178,702
Non-controlling interests		11,735	10,553
Total equity		199,133	189,255
Total liabilities and equity		344,558	328,568

(2) Consolidated statement of profit or loss

For the years ended December 31, 2019 and 2018

(Millions of yen)

	Note	2019	2018
Net sales	5,22	289,808	294,626
Cost of sales	23	(212,105)	(215,043)
Gross profit		77,703	79,583
Other income	24	1,795	1,582
Selling, general and administrative expenses	23	(51,998)	(53,184)
Other expenses	24	(2,180)	(6,093)
Operating profit	5	25,320	21,889
Finance income	25	766	366
Finance costs	25	(971)	(1,473)
Share of profit of investments accounted for using the equity method	14	2,864	9,181
Profit before tax		27,979	29,962
Income tax expense	19	(8,028)	(6,997)
Profit for the year		19,951	22,965

Profit for the year attributable to			
Owners of the parent		17,931	21,029
Non-controlling interests		2,020	1,935
Profit for the year		19,951	22,965

Earnings per share			
Basic earnings per share (yen)	27	144.50	169.65
Diluted earnings per share (yen)	27	144.42	169.42

(3) Consolidated statement of comprehensive income

For the years ended December 31, 2019 and 2018

(Millions of yen)

	Note	2019	2018
Profit for the year		19,951	22,965
Other comprehensive income for the year			
Items that will not be reclassified to profit or loss			
Remeasurements of net defined benefit liabilities (assets)	21	(189)	(18)
Net changes in financial assets measured at fair value through other comprehensive income	21	288	(16)
Share of other comprehensive income of investments accounted for using the equity method	14,21	328	677
Total items that will not be reclassified to profit or loss		427	643
Items that may be reclassified subsequently to profit or loss			
Exchange differences on translation of foreign operations	21	(919)	(2,628)
Total items that may be reclassified subsequently to profit or loss		(919)	(2,628)
Total other comprehensive income for the year, net of tax		(492)	(1,984)
Total comprehensive income for the year		19,459	20,980

Comprehensive income attributable to			
Owners of the parent		17,602	19,552
Non-controlling interests		1,856	1,428
Total comprehensive income for the year		19,459	20,980

(4) Consolidated statement of changes in equity

For the years ended December 31, 2019 and 2018

2019

(Millions of yen)

	Note	Share capital	Share premium	Retained earnings	Treasury shares	Other components of equity	
						Exchange differences on translation of foreign operations	Valuation differences due to changes in fair value
Balance as of January 1, 2019		10,000	15,096	155,133	(2,903)	(2,887)	4,264
Profit for the year		—	—	17,931	—	—	—
Other comprehensive income for the year	21	—	—	—	—	(752)	615
Total comprehensive income for the year		—	—	17,931	—	(752)	615
Acquisition (disposal) of treasury shares and others, net	21	—	—	(35)	367	—	—
Dividends	21	—	—	(9,074)	—	—	—
Transfer from other components of equity to retained earnings		—	—	(160)	—	—	(32)
Share-based payment transactions	26	—	(164)	—	—	—	—
Total transactions with owners and others		—	(164)	(9,270)	367	—	(32)
Balance as of December 31, 2019		10,000	14,932	163,794	(2,536)	(3,639)	4,847

	Note	Other components of equity		Total equity attributable to owners of the parent	Non-controlling interests	Total equity
		Remeasurements of net defined benefit liabilities (assets)	Total			
Balance as of January 1, 2019		—	1,377	178,702	10,553	189,255
Profit for the year		—	—	17,931	2,020	19,951
Other comprehensive income for the year	21	(192)	(329)	(329)	(163)	(492)
Total comprehensive income for the year		(192)	(329)	17,602	1,856	19,459
Acquisition (disposal) of treasury shares and others, net	21	—	—	332	—	332
Dividends	21	—	—	(9,074)	(674)	(9,748)
Transfer from other components of equity to retained earnings		192	160	—	—	—
Share-based payment transactions	26	—	—	(164)	—	(164)
Total transactions with owners and others		192	160	(8,906)	(674)	(9,580)
Balance as of December 31, 2019		—	1,208	187,398	11,735	199,133

2018

(Millions of yen)

	Note	Share capital	Share premium	Retained earnings	Treasury shares	Other components of equity	
						Exchange differences on translation of foreign operations	Valuation differences due to changes in fair value
Balance as of January 1, 2018		10,000	14,956	143,349	(3,600)	(773)	3,604
Profit for the year		—	—	21,029	—	—	—
Other comprehensive income for the year	21	—	—	—	—	(2,114)	640
Total comprehensive income for the year		—	—	21,029	—	(2,114)	640
Acquisition (disposal) of treasury shares and others, net	21	—	—	(30)	200	—	—
Dividends	21	—	—	(9,193)	—	—	—
Transfer from other components of equity to retained earnings		—	—	(23)	—	—	20
Share-based payment transactions	26	—	140	—	—	—	—
Others	21	—	—	—	496	—	—
Total transactions with owners and others		—	140	(9,246)	697	—	20
Balance as of December 31, 2018		10,000	15,096	155,133	(2,903)	(2,887)	4,264

	Note	Other components of equity		Total equity attributable to owners of the parent	Non-controlling interests	Total equity
		Remeasurements of net defined benefit liabilities (assets)	Total			
Balance as of January 1, 2018		—	2,831	167,537	9,465	177,002
Profit for the year		—	—	21,029	1,935	22,965
Other comprehensive income for the year	21	(3)	(1,477)	(1,477)	(507)	(1,984)
Total comprehensive income for the year		(3)	(1,477)	19,552	1,428	20,980
Acquisition (disposal) of treasury shares and others, net	21	—	—	170	—	170
Dividends	21	—	—	(9,193)	(340)	(9,533)
Transfer from other components of equity to retained earnings		3	23	—	—	—
Share-based payment transactions	26	—	—	140	—	140
Others	21	—	—	496	—	496
Total transactions with owners and others		3	23	(8,387)	(340)	(8,727)
Balance as of December 31, 2018		—	1,377	178,702	10,553	189,255

(5) Consolidated statement of cash flows

For the years ended December 31, 2019 and 2018

(Millions of yen)

	Note	2019	2018
Cash flows from operating activities			
Profit for the year		19,951	22,965
Depreciation and amortization		13,093	10,011
Impairment losses	11	1,268	5,223
Increase (decrease) in net defined benefit assets and liabilities		151	180
Interest and dividends income		(302)	(259)
Interest expenses		269	124
Share of (profit) loss of investments accounted for using the equity method		(2,864)	(9,181)
Loss (gain) on sale and disposal of property, plant and equipment		400	185
Income tax expense		8,028	6,997
Decrease (increase) in trade receivables, contract assets and contract liabilities		5,972	(1,496)
Decrease (increase) in inventories		2,015	(4,454)
Increase (decrease) in trade payables		(4,888)	22
Others		2,133	104
Sub-total		45,226	30,421
Interest and dividends received		1,230	1,190
Interest paid		(256)	(112)
Income tax paid		(7,767)	(7,335)
Net cash provided by operating activities		38,433	24,165

(Millions of yen)

	Note	2019	2018
Cash flows from investing activities			
Decrease (increase) in time deposits		(4,535)	(73)
Purchase of property, plant and equipment		(13,743)	(20,650)
Proceeds from sales of property, plant and equipment		206	168
Purchase of intangible assets		(1,020)	(840)
Purchase of share options		—	(626)
Others		(994)	198
Net cash used in investing activities		(20,086)	(21,823)
Cash flows from financing activities			
Net increase (decrease) in short-term borrowings	17	(3,106)	18,023
Proceeds from long-term borrowings	17	2,152	130
Repayments of long-term borrowings	17	(232)	(249)
Payments of lease liabilities	17	(2,477)	—
Net decrease (increase) in treasury shares		42	17
Dividends paid	21	(9,071)	(9,184)
Dividends paid to non-controlling interests		(674)	(340)
Net cash used in financing activities		(13,365)	8,396
Net increase in cash and cash equivalents		4,982	10,739
Cash and cash equivalents at the beginning of the year	6	54,039	44,121
Effect of exchange rate changes on cash and cash equivalents		(335)	(821)
Cash and cash equivalents at the end of the year	6	58,686	54,039

Notes to consolidated financial statements

1. Reporting entity

Nabtesco Corporation (the “Company”) is an entity domiciled in Japan. The Company’s consolidated financial statements for the year ended December 31, 2019 comprise the financial statements of the Company and its subsidiaries (the “Group”) and the equity interests in associates. The Group’s principal businesses are “Component Solutions Business”, “Transport Solutions Business” and “Accessibility Solutions Business”. The details are described in Note "5. Business segments”.

2. Basis of preparation

(1) Compliance with IFRS

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (“IFRS”).

The accompanying consolidated financial statements were authorized by the Company's Board of Directors on March 24, 2020.

(2) Basis of measurement

As described in “Note 3. Significant accounting policies”, the Group’s consolidated financial statements have been prepared based on historical cost, except for certain items, such as financial instruments measured at fair value.

(3) Functional currency and presentation currency

The Group’s consolidated financial statements are presented in Japanese yen, which is the Company’s functional currency.

3. Significant accounting policies

The significant accounting policies are consistently applied, unless specifically stated, to all the periods presented in the consolidated financial statements.

(1) Basis of consolidation

1) Subsidiaries

Subsidiaries are entities controlled by the Group. The financial statements of subsidiaries are included in the Group's consolidated financial statements from the date on which the Group obtains control of the subsidiary and until the date on which control is lost. The accounting policies of subsidiaries have been adjusted to conform to the accounting policies adopted by the Group, as necessary.

Changes in the Group's ownership interest in a subsidiary that do not result in a loss of control are accounted for as equity transactions. Any difference between the adjusted non-controlling interests and the fair value of consideration is recognized as equity attributable to owners of the parent.

Intra-group balances of receivables and payables, intra-group transactions, and unrealized gains and losses arising from intra-group transactions are eliminated in preparing the consolidated financial statements.

A subsidiary with a different reporting date is consolidated based on its provisional financial statements at the consolidated reporting date.

2) Investments in associates

Associates are entities over which the Group has a significant influence, but not control, on the financial and operating policies. If the Group holds 20% or more of the voting rights of another entity, the Group is presumed to have significant influence over the entity.

Investments in associates are accounted for using the equity method and are recognized at cost on acquisition. Under the equity method, any difference between the cost of the investment on the investment date and the Group’s share of the net fair value of the investee’s identifiable assets and liabilities is included in the carrying amount of the investment as goodwill.

In the consolidated financial statements, the carrying amount of the investment is adjusted to recognize the Group’s share of the profit or loss and other comprehensive income of the associate during the period from the date on which the Group has a significant influence until the date on which it loses such influence.

The Group's share of losses of an associate is recorded in profit or loss to the extent of the Group's interest in the associate. Any further loss is not recognized except when the Group incurs legal or constructive obligations or makes payments on behalf of the associate.

In applying the equity method, necessary adjustments are made to align the accounting policies of the associates accounted for using the equity method with the Group's accounting policies. For certain associates accounted for using the equity method, it is impracticable to conform their reporting dates to the Group's reporting date mainly due to the relationships with other owners of the associates. The consolidated financial statements, therefore include investments in such associates whose reporting dates differ from the Group's reporting date. Adjustments are made for significant transactions or events that occurred between the reporting date of the associates accounted for using the equity method and that of the Group. Reporting date of the associates accounted for using the equity method is mainly March 31.

Unrealized gains arising from transactions with associates accounted for using the equity method are eliminated against the investment to the extent of the Group's interest in the investees.

(2) Business combinations

Business combinations are accounted for using the acquisition method. Identifiable assets and liabilities of an acquiree are measured at fair value at the date of acquisition.

Goodwill is measured as the excess of the aggregate of the consideration transferred in a business combination, the amount of any non-controlling interest in the acquiree and the fair value of the acquirer's previously held equity interest in the acquiree, over the net amount of identifiable assets and liabilities at the date of acquisition.

Acquisition-related costs are expensed in the periods in which they are incurred.

Regarding business combinations of entities under common control, the Company accounts for such transactions based on the carrying amounts prior to the occurrence of the transaction.

(3) Foreign currencies

1) Functional currencies and presentation currencies

The financial statements of Group entity are prepared using their functional currency, which is the currency of the primary economic environment in which the entity operates. The presentation currency of the Group's consolidated financial statements is Japanese yen, which is the Company's functional currency.

2) Transactions denominated in foreign currencies

Transactions denominated in foreign currencies are translated into the functional currency using the exchange rates at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies at the end of the fiscal year are translated into the functional currency using the exchange rate at the end of the fiscal year.

Non-monetary assets and liabilities denominated in foreign currencies measured at historical cost are translated into the functional currency using the exchange rate at the dates of the transaction.

Non-monetary assets and liabilities denominated in foreign currencies measured at fair value are translated into the functional currency using the exchange rate at the date when the fair value was measured. Exchange differences arising from translations are recognized in profit or loss. However, exchange differences arising from the translations of financial instruments measured at fair value through other comprehensive income are recorded in other comprehensive income.

3) Foreign operations

The assets and liabilities of foreign operations are translated into Japanese yen using the exchange rate at the end of the fiscal year. The income and expenses of foreign operations are translated into Japanese yen using the average rate for the fiscal year, except for cases of significant exchange rate movements during the fiscal year.

Exchange differences arising from the translation of financial statements of foreign operations are recognized as other comprehensive income and recorded in other components of equity. These exchange differences are reclassified to profit or loss when a foreign operation is disposed.

(4) Cash and cash equivalents

Cash and cash equivalents are composed of cash on hand, demand deposits and short-term investments that are readily convertible to cash and which are subject to an insignificant risk of changes in value with maturities of three months or less from the date of acquisition.

(5) Inventories

Inventories are measured at the lower of cost and net realizable value. The cost is determined mainly based on the weighted average method and includes costs of purchase, costs of production, costs of conversion and other costs incurred in bringing the inventories to their present location and condition.

Net realizable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

(6) Financial instruments

1) Non-derivative financial assets

The Group initially recognizes financial assets at the transaction date when it becomes a party to the contract concerning the financial instruments.

Financial assets are initially measured at fair value. For financial assets that are not measured at fair value through profit or loss after initial recognition, transaction costs directly incurred for the acquisition of the financial assets are included in the amount initially measured.

(a) Financial assets measured at amortized cost

Financial assets are classified as measured at amortized cost if the following conditions are met:

・the financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows; and

・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 after initial recognition at amortized cost applying the effective interest method.

A loss allowance is recognized for expected credit losses on financial assets measured at amortized cost.

At the end of each fiscal year, the Group assesses whether there has been a significant increase in credit risk for financial assets by comparing the credit risk of such assets at the end of the fiscal year and at the date of initial recognition.

A loss allowance for financial assets is measured at an amount equal to the lifetime expected credit losses if the credit risk has increased significantly since initial recognition, or at an amount equal to 12-month expected credit losses if the credit risk of such assets has not increased significantly. However, notwithstanding the above, a loss allowance for trade receivables and contract assets that include no significant financing components is measured at an amount equal to the lifetime expected credit losses. Provision of the loss allowance for financial assets is recognized in profit or loss. In cases where an event to reduce the loss allowance occurs, the reversal of the loss allowance is recognized in profit or loss.

(b) Financial assets measured at fair value through other comprehensive income

The Group has elected to recognize changes in the fair value of equity instruments, in principle, in other comprehensive income at initial recognition unless the instrument is held for trading purposes. The Group designates those equity instruments as measured through other comprehensive income, and such designations are applied irrevocably and consistently. These financial assets are measured after initial recognition at fair value through other comprehensive income.

When the financial assets are sold, the cumulative gain or loss previously recognized in other comprehensive income is reclassified to retained earnings at the time of the sale. Dividends from the financial assets are recognized in profit or loss.

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

Financial assets that do not fall into the category (a) or (b) above are classified as financial assets measured at fair value through profit or loss. These financial assets are measured after initial recognition at fair value through profit or loss.

The Group derecognizes financial assets when the contractual rights to the cash flows expire or are transferred, or when substantially all the risks and rewards of ownership are transferred.

2) Non-derivative financial liabilities

The Group initially recognizes debt securities issued by the Group at the date of issuance. All other financial liabilities are recognized at the transaction date when the Group becomes a party to the contract of the financial instruments.

The Group's non-derivative financial liabilities, which are composed mainly of bonds and borrowings, are all classified as financial liabilities measured at amortized cost. Financial liabilities measured at amortized cost are measured initially at fair value plus or minus direct transaction costs and subsequently at amortized cost applying the effective interest method.

The Group derecognizes financial liabilities when the contractual obligation is discharged, cancelled or expired.

3) Derivative financial instruments

The Group mainly holds derivative financial instruments to avert and mitigate the risks from fluctuations in foreign exchange and interest rates.

Derivatives are initially recognized at fair value, and any related transaction costs are recognized in profit or loss as incurred. Derivatives instruments are measured after initial recognition at fair value through profit or loss.

(7) Property, plant and equipment

1) Recognition and measurement

Property, plant, and equipment are measured at cost less accumulated depreciation and accumulated impairment losses using the cost model.

The cost includes the following costs directly related to the acquisition of the asset:

・costs of employee benefits, installation and assembly costs arising directly from the production of the asset;
・estimated costs of dismantlement and removal when having an obligation to remove the asset; and
・capitalized borrowing costs

2) Depreciation

Property, plant and equipment are depreciated using the straight-line method over the estimated useful life of each item.

Depreciation is determined based on the depreciable amount, which is calculated as the cost of the asset less its residual value.

The estimated useful lives are as follows:

Buildings and structures:	3 to 50 years
Machinery, equipment and vehicles:	4 to 17 years
Tools, furniture and fixtures:	2 to 20 years

Depreciation methods, useful lives and residual values are reviewed at the end of each fiscal year and revised as necessary.

(8) Goodwill and intangible assets

1) Goodwill

The measurement at initial recognition is described in "(2) Business combinations".

After initial recognition, goodwill is presented at cost less accumulated impairment losses. Goodwill is not subject to amortization but is tested for impairment each fiscal year and whenever there is an indication of impairment. Impairment losses for goodwill are not reversed.

2) Research and development costs

Expenditure on research activities with the aim of gaining new scientific or technological knowledge and understanding is recognized in profit or loss as incurred.

3) Other intangible assets

Other intangible assets are measured at cost less accumulated amortization and accumulated impairment losses using the cost model.

The cost of intangible assets recognized separately from goodwill in a business combination is measured at their fair value at the acquisition date.

Such assets are amortized using the straight-line method over their estimated useful lives from the date on which the assets are available for use.

Amortization is determined based on the depreciable amount, which is calculated as the cost of the asset less its residual value.

The estimated useful lives are as follows:

Software:	3 to 5 years
Customer related assets:	3 to 8 years
Technology assets:	7 to 20 years
Others:	8 to 20 years

Amortization methods, useful lives and residual values are reviewed at the end of each fiscal year and revised as necessary.

Intangible assets with indefinite useful lives are presented at cost less accumulated impairment losses. Such assets are not subject to amortization but are tested for impairment each fiscal year and whenever there is an indication that the intangible asset may be impaired.

(9) Lease

1) Lease liabilities

Lease liabilities are recognized and measured at the present value of the lease payments that are not paid at the commencement date. Discount rate is based on the interest rate implicit in the lease, if that rate can be readily determined.If the interest rate implicit in the lease cannot be readily determined, the discount rate is based on the lessee's incremental borrowing rate. The lease liabilities may increase or decrease depending on the interest rate and lease payments on the lease liabilities after the commencement date.

2) Right-of-use assets

Right-of-use assets are recognized and measured at cost, which comprises the initial measurement of the lease liabilities adjusted for the initial direct costs and lease payments made at or before the commencement date. After the commencement date, the right-of-use assets are measured at cost less accumulated depreciation and accumulated impairment losses, applying the cost model. The right-of-use assets are depreciated using the straight-line method from the commencement date to the earlier of the end of the useful life of the right-of-use assets or the end of the lease term.

For short-term leases and leases for which the underlying asset is of low value, the right-of-use assets and lease liabilities are not recognized, applying the recognition exemptions. They are recognized as expenses using the straight-line method over the lease term.

(10) Investment property

Investment property is property held to earn rental income or for capital appreciation or both, which is measured and depreciated on the same basis as property, plant and equipment. The estimated useful lives of investment property are 5 - 50 years.

Depreciation methods, useful lives and residual values are reviewed at the end of each fiscal year and revised as necessary.

(11) Impairment of non-financial assets

At the end of each fiscal year, it is determined whether there is any indication of impairment for the carrying amount of the Group's non-financial assets other than inventories, deferred tax assets and assets for retirement benefits. If there is any indication of impairment, the recoverable amount of the asset is estimated.

The recoverable amount of an asset or cash-generating unit is the higher of its value in use and its fair value less costs of disposal. Value in use is determined by discounting estimated future cash flows to their present value using a pre-tax discount rate that reflects the time value of money and the risks specific to the asset.

An impairment loss is recognized for an asset or cash-generating unit when its carrying amount exceeds its recoverable amount.

At the end of each fiscal year, it is assessed whether there is any indication that an impairment loss recognized in prior years may have decreased or may no longer exist. If there are any changes in the estimates used to determine the recoverable amount, the impairment loss is reversed to the extent of the carrying amount less depreciation that would have been determined if no impairment loss had been recognized.

The accounting treatment for impairment losses related to goodwill is described in “(8) Goodwill and intangible assets, 1) Goodwill”. The policy of impairment loss of the intangible assets with indefinite useful life is described “(8) Goodwill and intangible assets 3) Other intangible assets”.

(12) Employee benefits

1) Post-employment benefits

The Group has adopted retirement lump-sum payment plans and pension plans as post-employment benefit plans for employees. These plans are classified as either defined contribution plans or defined benefit plans.

(a) Defined contribution plans

Post-employment benefit costs for defined contribution plans are recognized as an expense for the period during which employees render services.

(b) Defined benefit plans

For each defined benefit plan, the Group determines the present value of its defined benefit obligations and the related current service cost and past service cost using the projected unit credit method. A discount period is set based on the expected term until the future benefit payments, and the discount rate is determined by reference to market yields at the end of the fiscal year on high-quality corporate bonds that have a term consistent with the discount period. Net defined benefit liabilities are determined by deducting the fair value of any plan assets from the present value of the defined benefit obligation. Remeasurements of the net defined benefit assets or liabilities are recognized collectively in other comprehensive income and reclassified to retained earnings in the period during in which they are incurred.

2) Short-term employee benefits

Short-term employee benefits are recognized as an expense on an undiscounted basis when the related service is provided.

Bonuses are recognized as liabilities for the amount estimated to be paid in accordance with the applicable plans when the Group has present legal or constructive obligations to pay as a result of past labor rendered by employees, and the obligations can be reliably estimated.

(13) Provisions and contingent liabilities

Provisions are recognized when the Group has, as a result of past events, a present legal or constructive obligation that can be reasonably estimated, and the settlement of the obligation is likely to give rise to an outflow of economic resources. When the time value of money is material, provisions are measured by discounting the estimated future cash flows to the present value using a pre-tax discount rate that reflects the time value of money and the risks specific to the liability. The unwinding of the discount due to the passage of time is recognized as a finance cost.

To provide against the payment of costs, including repair costs that may be incurred after the delivery of products, the costs are estimated and recorded as a provision for product warranties.

To provide against future losses on contracts received, expected losses on the contracts received at the end of the fiscal year are separately estimated and recorded as a provision for loss on orders received.

The Group discloses contingent liabilities in the notes to consolidated financial statements if there are possible obligations at the end of the fiscal year, whose existence cannot be confirmed at that date, or if the obligations do not meet the recognition criteria for provisions.

(14) Shareholders' equity

1) Ordinary shares

Ordinary shares are classified as equity. Additional costs related directly to the issuance of ordinary shares and share options are recognized net of tax as a deduction from equity.

2) Treasury shares

When treasury shares is acquired, the consideration paid, which includes any direct transaction costs (net of tax), is recognized as a deduction from equity. When treasury shares is disposed of, the difference between the consideration received and the carrying amount of the treasury shares is recognized as equity.

3) Share-based payment transactions

(a) Share option plan

The Company had been implementing share-based payment-type share option plan until the end of March 2017, under which the right to purchase the Company's shares can be exercised, for the Company's directors and executive officers (excluding outside directors; hereinafter, the "Directors"). As the share options under the plan vest at the date when the share-based payment is granted, they are estimated at fair value at a grant date and recognized collectively as an expense while the corresponding amount is recognized as equity. The fair value of options granted is determined using the Black-Scholes model, taking into account the terms and conditions of the options. The Company abolished the plan in March 2017. However, the share options granted to the Directors that have not been exercised remain

(b) Board Benefit Trust (Share settlement-type)

The Company has introduced a Board Benefit Trust ("BBT") under which the Company grants its treasury shares to the Company's Directors through the trust from May 2017. In the share-based payment plan, the Company measures the value of rendered services and the corresponding increase in equity at fair value of equity instruments at a grant date. The amount is recorded as an expense over the vesting period, and the same amount is recognized as an increase in equity.

(15) Revenues from contracts with customers

Following the application of IFRS 15, the Group recognizes revenues based on the five-step approach below.

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

1) Performance obligations that are satisfied at a point in time

The Group's main lines of business are the manufacture and sale of industrial robot components, equipment for construction machinery, brake systems and automatic door operating systems for railroad vehicles, aircraft components, brake systems and drive control units for vehicles, control systems for marine vessels, automatic door operating systems for buildings and general industry, and platform safety systems. In the sale of such products, the Group recognizes revenue principally at delivery of the product since the Group deems that performance obligation is satisfied when the customer gains control over the product at delivery in most cases. Revenue is measured by deducting discounts, rebates and returns from the compensation promised in the contract with customers.

2) Performance obligations that are satisfied over time

The Group satisfies its performance obligations and recognizes revenue over time if one of the following criteria is met, since control over a product or service is transferred over time:

a. the customer simultaneously receives and consumes all of the benefits provided by the Group as the Group performs;

b. the Group's performance creates or enhances an asset that the customer controls as the asset is created or enhanced; or

c. the Group's performance does not create an asset with an alternative use to the Group and the Group has an enforceable right to payment for performance completed to date.

The Group's revenues concerning performance obligations that are satisfied over time include those for the performance obligation of platform safety systems. The revenue of platform safety systems is recognized by estimating the stage of completion. The stage of completion is calculated by the percentage of the actual cost of construction to the total estimated cost of construction (input method).

(16) Finance income and finance costs

Finance income mainly consists of interest income, dividends income, foreign exchange gains and gains on derivatives. Interest income is recognized when it occurs using the effective interest method. Dividend income is recognized when the Group's right to receive payment is established.

Finance costs mainly consist of interest expenses, foreign exchange losses and losses on derivatives.

(17) Income taxes

Income taxes consist of current taxes and deferred taxes. These are recognized in profit or loss, except for items recognized in other comprehensive income, items recognized directly in equity and items recognized through business combinations.

Current taxes are determined by multiplying the current taxable income by the tax rates that have been enacted or substantially enacted by the end of the fiscal year.

Deferred taxes are recognized for temporary differences between the carrying amount of assets and liabilities in the financial statements and their tax base. Deferred tax assets are recognized for deductible temporary differences, unused tax credits and unused tax losses to the extent that it is probable that future taxable income will be available against which they can be utilized. Deferred tax liabilities are recognized, in principle, for taxable temporary differences.

However, deferred tax assets or liabilities are not recorded for:

・initial recognition of assets or liabilities in a transaction that is not related to business combination and that affects neither accounting profit nor taxable income;

・differences arising from investments in subsidiaries and joint arrangements to the extent that it is probable that the temporary difference will not reverse in the foreseeable future; and

・taxable temporary differences arising from the initial recognition of goodwill.

Deferred taxes are measured using the tax rates that are expected to be applied when the temporary differences will reverse, based on the laws that have been enacted or substantively enacted by the end of the fiscal year.

Deferred tax assets and deferred tax liabilities are offset when the Group has a legally enforceable right to set off current tax assets against current tax liabilities and when income taxes are levied by the same taxation authority on the same taxable entity.

(18) Earnings per share

Basic earnings per share are calculated by dividing profit attributable to the Company's ordinary shareholders by the weighted average number of ordinary shares (after adjusting for treasury shares) outstanding during the period. Diluted earnings per share are calculated by adjusting the effects of all dilutive potential ordinary shares. The Company's potential ordinary shares include share options.

(19) Changes in accounting policies

The Group has adopted IFRS 16 "Leases" (hereinafter, "IFRS 16") from the year ended December 31, 2019. In adopting IFRS 16, the Group uses the method of recognizing the cumulative effect of adoption of IFRS 16, which is accepted as a transitional measure, at the date of initial application (January 1, 2019).

In the year ended December,31 2018, The Group, as a lessee, classified leases as operating or finance leases based on the assessment of whether they transfer substantially all the risks and rewards incident to ownership.

From the year ended December 31, 2019, the Group determines whether the contract is, or contains, a lease at inception of the contract.

A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. . The Group recognizes the right-of-use asset and lease liability for the lease contract at the date of commencement of the lease or the contract that contains the lease.

In adopting IFRS 16, the Group uses the practical expedient in paragraph C3 of IFRS 16 to continue the determination of whether a contract is, or contains, a lease based on IAS 17 "Leases" (hereinafter, "IAS 17") and IFRIC 4 "Determining whether an Arrangement contains a Lease." After the date of initial application, the Group assesses the leases based on the requirements of IFRS 16. The initial direct costs of the leases previously classified as operating leases under IAS 17 are excluded from the measurement of the cost of right-of-use assets at the date of initial application, applying the practical expedient in paragraph C10 (d) of IFRS 16.

In adopting IFRS 16, the Group recognized right-of-use assets at ¥9,832 million and lease liabilities at ¥9,233 million at the date of initial application.Net cash provided by operating activities increased and net cash provided by financing activities decreased. The Group also changed the measurement method of profit or loss and assets in each business segment.

The table below is a reconciliation of the carrying amount from the amount of non-cancellable operating leases disclosed under IAS 17 in the year ended December 31, 2018 to the amount of lease liabilities recognized on the consolidated statement of financial position at the date of initial application.

(Millions of yen)

Non-cancellable operating leases disclosed under IAS 17 in the year ended December 31, 2018	5,563

Non-cancellable operating leases disclosed under IAS 17 in the year ended December 31, 2018 (Discounted)	5,104
Cancellable operating leases and others	4,129
Lease liabilities recognized on the consolidated statement of financial position at the date of initial application	9,233

(Note) Weighted averaged incremental borrowing rate applied to the lease liabilities on the consolidated statement of financial position at the date of initial application was 0.90%.

4. Significant accounting judgments, estimates and assumptions

In preparing consolidated financial statements in accordance with IFRS, management is required to make judgments, estimates and assumptions that may affect the application of accounting policies as well as the reported amounts of assets, liabilities, revenue and expenses. Actual results may differ from these estimates.

The estimates and the underlying assumptions are reviewed on an ongoing basis. Changes in accounting estimates are recognized in the period when such estimates are changed and future periods that are affected by the changes.

Major accounting judgments, estimates and assumptions are as follows:

(1) Valuation of inventories

In determining the net realizable value of inventories, the Group makes assumptions about the costs of completion and the costs necessary to make the sale in accordance with Note "3. Significant accounting policies".

These assumptions are based on the best estimates and judgments made by management. However, there is a possibility that they may be affected by changes in uncertain future economic conditions. When the reconsideration of the assumptions is required, it may have a material impact on the consolidated financial statements.

The amount of the write-down of inventories is described in Note "8. Inventories".

(2) Significant assumptions used in the calculation of expected discounted cash flows for the impairment tests of non-financial assets

The Group tests property, plant and equipment, as well as intangible assets and goodwill for impairment in accordance with "Note 3. Significant accounting policies". When determining a recoverable amount in the impairment test, assumptions are made for future cash flows, discount rates and other variables.

These assumptions are based on the best estimates and judgments made by management. However, there is a possibility that they may be affected by changes in uncertain future economic conditions. When the assumptions need to be reconsidered, it may have a material impact on the consolidated financial statements.

The impairment testing of goodwill is described in Note "10. Goodwill and intangible assets". Impairment of other non-financial assets Including goodwill is described in Note "11. Impairment of non-financial assets".

(3) Provisions and contingent liabilities

The Group recognizes various provisions such as the provision for product warranties, in the consolidated statement of financial position. These provisions are recorded based on the best estimates of the expenditures required to settling the obligations taking into account risks and uncertainty related to the obligations at the end of the fiscal year.

Expenditures required to settle the obligations are determined comprehensively by taking into account possible results. However, they may be affected by the occurrence of unexpected events or changes in circumstances. If the actual payment differs from the estimate, the amounts recognized in the future consolidated financial statements may be materially affected.

The Group discloses contingent liabilities taking into account all available evidence at the end of the fiscal year as well as the probability and monetary effects thereof.

The details and amounts of the provisions and contingent liabilities are provided in Note "16. Provisions" and Note "32. Contingent liabilities".

(4) Measurement of defined benefit obligations

The Group has various post-employment benefit plans including defined benefit plans. For each plan, the present value of the defined benefit obligations and the related costs including service cost are determined based on actuarial assumptions such as discount rates, and mortality rates and other factors. The actuarial assumptions are based on the best estimates and judgments made by management. However, there is a possibility that they may be affected by changes in uncertain future economic conditions. When the assumptions need to be reconsidered, it may have a material impact on the consolidated financial statements.

The amounts of the defined benefit obligations, and plan assets and the assumptions are used in Note "18. Employee benefits".

(5) Income taxes

The Group is affected by income taxes in a number of tax jurisdictions. When determining the estimated amount of income taxes in each jurisdiction, significant judgments are required. There may be uncertainty regarding the final tax amounts due to the nature of the transactions and the calculation methods. The Group recognizes liabilities for anticipated tax investigations when an estimate of additional tax payment is required. If the final tax amount related to these issues is different from the amount that has been initially recognized, the difference may have a material impact on the consolidated financial statements.

Deferred tax assets are recognized to the extent that it is probable that taxable income will be available against which deductible temporary differences can be utilized. In recognizing deferred tax assets, when assessing the probability taxable income will be available, the Group reasonably estimates the timing and amount of future taxable income and determines the amount accordingly.

The timing when taxable income arises and the amount of such income may be affected by changes in uncertain future economic conditions and may, if the timing and amount that have actually arisen differ from the estimates, have a material impact on the amounts recognized in the future consolidated financial statements.

Significant components of deferred tax assets are described in Note “19. Income taxes”.

(6) Valuation of financial instrument

The fair value of specific financial instruments is measured based on valuation techniques that use unobservable inputs. The unobservable inputs may be affected by changes in uncertain future economic conditions and others. When the inputs need to be reconsidered, it may have a material impact on the consolidated financial statements.

The valuation of fair value of the specific financial instruments is described in Note “20. Financial instruments”.

(7) Fair value of assets acquired and liabilities assumed in business combinations

Assets acquired and liabilities assumed in business combination are measured at fair value on the acquisition date. The future cash-flows, on which the calculation of fair value is based, reflect the time value of money and risk specific to the assets in a discount rate. Although the measurement of fair value is based on the best estimates made by management, there is a possibility that the measurements may be affected by changes in uncertain future economic conditions. There is a risk that the changes may have a material impact on the value of intangible assets and goodwill.

The fair value of assets acquired and liabilities assumed is described in Note “28. Business combinations”.

(8) Scope of subsidiaries

The Group considers a specific company which is owned its voting rights less than 50% by the Company as a subsidiary, because the Company controls a company.

The specific company is described in Note “29. Subsidiaries”.

(9) Scope of investments accounted for using the equity method

The Group accounts for investments in a specific company which is owned its voting rights less than 20% by the Company by the equity method, because the Company has significant influence on the specific company.

The investments in the specific company are described in Note “14. Investment accounted for using the equity method”.

5. Business segments

(1) Overview of reportable segments

The reportable segments are components of the Group areas for which discrete financial information is available, and are regularly reviewed by the Board of Directors to make decisions about resource allocation and to assess its performance.

Based on the similarity of business models, the Group aggregates its business segments and classifies them into the following three reportable segments: “Component Solutions Business”, “Transport Solutions Business” and “Accessibility Solutions Business”.

The main lines of business of each reportable segment are as follows:

Business segment	Main lines of business
Component Solutions Business	Design, manufacture, sale, maintenance and repair of industrial robot components and equipment for construction machinery and its components
Transport Solutions Business	Design, manufacture, sale, maintenance and repair of brake systems and automatic door operating systems for railroad vehicles, aircraft components, brake systems and drive control units for vehicles, control systems for marine vessels and their components
Accessibility Solutions Business	Design, manufacture, sale, installation, maintenance and repair of automatic door operating systems for buildings and general industry, platform safety systems and their components

(2) Information on reportable segments

The accounting policies for the reportable segments are same as the Group's accounting policies described in Note "3. Significant accounting policies".

Inter-segment sales and transfers are based on actual market prices.

2019

(Millions of yen)

	Reportable segment				Others	Total	Adjustments	Amount stated in consolidated
	Component	Transport	Accessibility	Total				
Net sales								
Sales to external customers	107,188	83,994	79,971	271,153	18,654	289,808	—	289,808
Inter-segment sales	2,668	1,396	7	4,070	289	4,359	(4,359)	—
Total net sales	109,856	85,389	79,978	275,223	18,943	294,167	(4,359)	289,808
Segment income (Operating profit)	15,897	5,778	8,565	30,239	2,551	32,790	(7,470)	25,320
Finance income	—							766
Finance costs	—							(971)
Share of profit of investments accounted for using the equity method	—							2,864
Profit before tax	—							27,979
Other items								
Depreciation and amortization	4,409	4,688	2,217	11,314	422	11,736	1,357	13,093
Impairment losses	—	1,268	—	1,268	—	1,268	—	1,268
Segment assets	106,910	82,304	81,544	270,758	16,981	287,739	56,819	344,558
Increase in tangible and intangible assets	8,882	4,520	1,320	14,723	348	15,071	1,575	16,646

Notes: 1. "Others" is a business segment that is not included in the reportable segments and consists of businesses that are engaged in design, manufacture, sale, maintenance and repair of packaging machinery, three-dimensional model production devices, machine tools and their components.

2. Adjustments for net sales are eliminations of inter-segment transactions.
3. Adjustments for segment income (operating profit) are corporate profit, loss and other adjustments that are not allocated to the respective segments.
4. Adjustments of depreciation and amortization are depreciation and amortization related to corporate assets that are not allocated to the respective segments.
5. Adjustments for segment assets include corporate assets of ¥56,819 million that are not allocated to the respective segments. The main items are surplus funds (cash and cash equivalents) and investment funds (investments securities) of the Company.
6. Adjustments of increase in tangible and intangible assets are capital investments in corporate assets that are not allocated to the respective segments.

2018

(Millions of yen)

	Reportable segment				Others	Total	Adjustments	Amount stated in consolidated
	Component	Transport	Accessibility	Total				
Net sales								
Sales to external customers	119,280	81,863	75,957	277,100	17,527	294,626	—	294,626
Inter-segment sales	2,388	695	14	3,096	291	3,387	(3,387)	—
Total net sales	121,668	82,558	75,970	280,196	17,817	298,013	(3,387)	294,626
Segment income (Operating profit)	20,197	2,007	4,625	26,830	2,458	29,288	(7,400)	21,889
Finance income	—							366
Finance costs	—							(1,473)
Share of profit of investments accounted for using the equity method	—							9,181
Profit before tax	—							29,962
Other items								
Depreciation and amortization	4,176	3,516	1,302	8,994	262	9,256	755	10,011
Impairment losses	—	5,223	—	5,223	—	5,223	—	5,223
Segment assets	107,023	83,765	74,507	265,296	16,530	281,826	46,742	328,568
Increase in tangible and intangible assets	11,424	6,950	945	19,319	300	19,619	669	20,288

Notes: 1. “Others” is a business segment that is not included in reportable segments and consists of businesses that are engaged in design, manufacture, sale, maintenance and repair of packaging machinery, three-dimensional model production devices, machine tools and their components.
2. Adjustments for net sales are eliminations of inter-segment transactions.
3. Adjustments for segment income (operating profit) are corporate profit, loss and other adjustments that are not allocated to the respective segments.
4. Adjustments of depreciation and amortization are depreciation and amortization related to corporate assets that are not allocated to the respective segments.
5. Adjustments for segment assets include corporate assets of ¥46,742 million that are not allocated to the respective segments. The main items are surplus funds (cash and cash equivalents) and investment funds (investments securities) of the Company.
6. Adjustments of increase in tangible and intangible assets are capital investments in corporate assets that are not allocated to the respective segments.

(3) Income from major products and services

The description of income from major products and services is omitted as similar information is disclosed in “(1) Overview of reportable segments” and “(2) Information on reportable segments” and Note “22. Revenues from contracts with customers”.

(4) Geographic information

Net sales

(Millions of yen)

	2019	2018
Japan	163,626	161,458
China	45,273	47,647
Other Asia	16,892	20,465
North America	21,985	19,738
Europe	39,922	43,913
Other regions	2,109	1,405
Total	289,808	294,626

Note: Net sales are classified by country or region based on the customer's locations.

Non-current assets

(Millions of yen)

	2019	2018
Japan	97,163	88,817
China	7,893	8,313
Other Asia	1,868	1,406
North America	1,282	1,292
Europe	11,657	7,901
Total	119,863	107,729

Note: Non-current assets are classified the locations of the assets and exclude financial assets, deferred tax assets, assets for retirement benefits and other items.

(5) Information about major customers

Information about major customers is omitted as there is no specific customer that accounts for 10% or more of net sales in the consolidated statement of profit or loss.

6. Cash and cash equivalents

Cash and cash equivalents as of December 31, 2019 and 2018 consist of the following:

(Millions of yen)

	2019	2018
Cash and deposits	42,686	44,039
Short-term investments due within three months from the date of acquisition	16,000	10,000
Total	58,686	54,039

Note: The balance of "Cash and cash equivalents" in the consolidated statement of financial position and that in the consolidated statement of cash flows are equal.

7. Trade receivables and other receivables

(1) Trade receivables

Trade receivables as of December 31, 2019 and 2018 consist of the following:

(Millions of yen)

	2019	2018
Accounts receivable	59,673	65,786
Notes receivable	10,003	9,285
Others	—	306
Less: Loss allowance	(501)	(424)
Total	69,175	74,952

(2) Other receivables

Other receivables as of December 31, 2019 and 2018 consist of the following:

(Millions of yen)

	2019	2018
Accounts receivable-others	1,300	1,643
Total	1,300	1,643

8. Inventories

Inventories as of December 31, 2019 and 2018 consist of the following:

(Millions of yen)

	2019	2018
Finished goods and merchandise	9,165	10,145
Work in progress	16,838	17,804
Raw materials and supplies	15,255	15,643
Total	41,257	43,592

Note: The amounts of write-down of inventories recorded in cost of sales are ¥291 million for the year ended December 31, 2019. The amounts of write-down of inventories recorded in cost of sales are not significant for the year ended December 31, 2018. There is no significant reversal of write-down for the years ended December 31, 2019 and 2018.

9. Property, plant and equipment

(1) Reconciliation of carrying amounts

(Millions of yen)

Cost	Buildings and structures	Machinery, equipment and vehicles	Tools, furniture and fixtures	Land	Construction in progress	Total
Balance as of January 1, 2018	24,796	24,207	4,926	14,385	2,387	70,700
Additions	―	―	―	280	19,040	19,320
Depreciation (Note 1)	(1,701)	(4,561)	(2,242)	―	―	(8,505)
Reclassification	1,879	8,716	2,513	―	(13,108)	―
Disposals	(157)	(131)	(27)	―	(1)	(315)
Exchange differences on translation of foreign operations	(320)	9	(113)	(107)	(96)	(627)
Balance as of December 31, 2018	24,497	28,240	5,057	14,558	8,221	80,573
Additions	―	―	―	57	15,169	15,226
Depreciation (Note 1)	(1,953)	(4,762)	(2,272)	―	―	(8,986)
Reclassification (Note 2)	4,680	6,587	2,605	(2,493)	(10,014)	1,365
Disposals	(115)	(447)	(29)	―	―	(591)
Exchange differences on translation of foreign operations	(73)	(204)	(135)	22	(115)	(505)
Balance as of December 31, 2019	27,036	29,415	5,225	12,145	13,261	87,083

Notes: 1. Depreciation of property, plant and equipment is included in "Cost of sales" and "Selling, general and administrative expenses" in the consolidated statement of profit or loss.

2. Reclassification included ¥1,365 million from Investment property.

(2) Cost

(Millions of yen)

	Buildings and structures	Machinery, equipment and vehicles	Tools, furniture and fixtures	Land	Construction in progress	Total
Balance as of January 1, 2018	56,270	79,431	28,953	14,385	2,387	181,425
Balance as of December 31, 2018	56,703	84,688	30,110	14,558	8,221	194,281
Balance as of December 31, 2019	59,563	87,845	30,515	12,145	13,261	203,328

(3) Accumulated depreciation and accumulated impairment losses

(Millions of yen)

	Buildings and structures	Machinery, equipment and vehicles	Tools, furniture and fixtures	Land	Construction in progress	Total
Balance as of January 1, 2018	31,474	55,224	24,026	―	―	110,725
Balance as of December 31, 2018	32,207	56,448	25,053	―	―	113,708
Balance as of December 31, 2019	32,527	58,430	25,289	―	―	116,246

10. Goodwill and intangible assets

(1) Reconciliation of carrying amounts

(Millions of yen)

	Goodwill	Software	Customer related assets	Technology assets	Others	Total
Balance as of January 1, 2018	21,310	2,449	2,266	438	697	27,159
Additions	—	838	—	—	53	892
Amortization (Note 2)	—	(1,004)	(291)	(25)	(127)	(1,446)
Impairment losses (Note 3)	(5,223)	—	—	—	—	(5,223)
Disposals	—	(1)	—	—	—	(1)
Exchange differences on translation of foreign operations	(574)	(17)	(155)	(27)	(19)	(792)
Balance as of December 31, 2018	15,512	2,267	1,820	386	604	20,588
Additions	—	1,076	—	—	86	1,162
Acquisitions through business combinations	—	—	258	—	—	258
Amortization (Note 2)	—	(917)	(361)	(24)	(174)	(1,476)
Impairment losses (Note 3)	(1,268)	—	—	—	—	(1,268)
Exchange differences on translation of foreign operations	(83)	214	(82)	(15)	(9)	25
Balance as of December 31, 2019	14,161	2,639	1,635	347	507	19,288

Notes: 1. There are no significant intangible assets with indefinite useful lives.
2. Amortization of intangible assets is included in "Cost of sales" and "Selling, general and administrative expenses" in the consolidated statement of profit or loss.
3. Impairment losses of goodwill are included in "Other expenses" in the consolidated statement of profit or loss.

(2) Cost

(Millions of yen)

	Goodwill	Software	Customer related assets	Technology assets	Others	Total
Balance as of January 1, 2018	25,419	6,758	2,633	461	1,548	36,819
Balance as of December 31, 2018	24,621	7,017	2,478	434	1,446	35,996
Balance as of December 31, 2019	24,357	7,915	2,654	419	1,446	36,791

(3) Accumulated amortization and accumulated impairment losses

(Millions of yen)

	Goodwill	Software	Customer related assets	Technology assets	Others	Total
Balance as of January 1, 2018	4,110	4,309	367	23	851	9,660
Balance as of December 31, 2018	9,109	4,751	658	49	842	15,408
Balance as of December 31, 2019	10,196	5,276	1,019	73	939	17,503

(4) Impairment test

Carrying amounts of goodwill as of December 31, 2019 and 2018 allocated to each cash-generating unit are as follows:

(Millions of yen)

Reportable segment	Cash-generating unit	2019	2018
Component	Nabtesco Power Control Company	2,582	2,582
Transport	OVALO Group	—	1,319
Accessibility	Gilgen Group	11,579	11,612
Total		14,161	15,512

The Group tests goodwill for impairment in accordance with Note "3. Significant accounting policies". Goodwill is not subject to amortization but is tested for impairment whenever there is an indication of impairment and annually irrespective of whether there is any indication of impairment. The Group compares the carrying amount of each cash-generating unit group including goodwill and the recoverable amount. An impairment loss is recognized by reducing the carrying amount to the recoverable amount.

The recoverable amount of goodwill is measured at its value in use. The value in use is the present value calculated by discounting the estimated future cash flows based on a business plan authorized by management. The period of the business plan is limited to 4 years, reflecting management's assessments of future industry trends and historical data based on internal and external information. The growth rate subsequent to the last year of the business plan is granted as zero or long-term average growth rate of the market to which the cash-generating unit belongs.

The Group recognized impairment loss as of December 31, 2019 as a result of the impairment testing of goodwill, under which the estimated cash flows are discounted by the pre-tax weighted average cost of capital of the cash-generating unit (7.4% to 15.0%). There is a risk that a change in key assumptions may result in impairment. If the pre-tax weighted average capital cost of capital increases by 0.4%, there is a possibility that impairment loss may be incurred. The details of this impairment loss are described in Note "11. Impairment of non-financial assets".

The Group did not recognize impairment loss as of December 31, 2018 as a result of the impairment testing of goodwill, under which the estimated cash flows are discounted by the pre-tax weighted average cost of capital of the cash-generating unit (6.9% to 17.7%). However, there is a risk that a change in key assumptions may result in impairment. If the pre-tax weighted average cost of capital increases by 1.7%, there is a possibility that an impairment loss may be incurred.

11. Impairment of non-financial assets

For the year ended December 31, 2019

During 2019, the Group recognized an impairment loss with goodwill allocated to the cash-generating unit of OVALO GmbH, as a result of impairment test, which the recoverable amount is less than the carrying amount.

The impairment loss is included in “Other expenses” in the consolidated statement of profit or loss. The impairment loss is recognized in the Transport Solutions Business. The recoverable value of this cash-generating unit is based on the value in use (pre-tax discount rate: 15.0%).

(Millions of yen)

Reportable segment	Asset type	Amount of impairment losses
Transport	Goodwill	1,268

For the year ended December 31, 2018

During 2018, the Group has reassessed the business plan of OVALO GmbH, the Group’s subsidiary, due to the change in the business environment. As a result of reassessment, OVALO GmbH’s performance is expected to be lower than originally planned. The Group recognized an impairment loss as a result of impairment test performed over goodwill allocated to the cash-generating unit.

The impairment loss is included in “Other expenses” in the consolidated statement of profit or loss. The impairment loss is recognized in the Transport Solutions Business. The recoverable value of this cash-generating unit is based on the value in use (pre-tax discount rate: 17.7%).

(Millions of yen)

Reportable segment	Asset type	Amount of impairment losses
Transport	Goodwill	5,223

12. Leases

(1) Book value and profit or loss of right-of-use assets

The details of book value and profit or loss of right-of-use assets are as follows.

The Group uses the underlying assets of the leases mainly for its business activities..

(Millions of yen)

Book value of right-of-use assets	2019
Buildings and structures	7,166
Machinery, equipment and vehicles	1,129
Tools, furniture and fixtures	106
Land	603
Total	9,004

(Millions of yen)

	2019
Depreciations of right-of-use assets	
Buildings and structures	2,085
Machinery, equipment and vehicles	391
Tools, furniture and fixtures	43
Land	22
Total of depreciations	2,541
Interest expense on lease liabilities	86
Expense relating to short-term leases	480
Expense relating to leases of low-value assets	1,026
Total cash outflow for leases	3,983
Additions to right-of-use assets	2,155

(2) Extension and cancellation options

Extension and cancellation options are included in each lease contract of the Group. Each lease contract is managed by each management of the Group, and the terms and conditions of the leases are individually negotiated and include a wide range of contractual terms. The extension and cancellation options are included in the lease liabilities only when they were exercisable and the Group is reasonably certain to exercise them.

A maturity analysis of the lease liabilities is described in Note “20. Financial instruments (2) Liquidity risk management”.

13. Investment property

(1) Overview of investments property

The Group has a part of an office building and land for lease in Tokyo and other areas.

(2) Reconciliation of carrying amount

(Millions of yen)

Balance as of January 1, 2018	5,404
Acquisitions	76
Depreciation	(61)
Disposals	(38)
Balance as of December 31, 2018	5,382
Acquisitions	—
Depreciation	(88)
Disposals	(1)
Reclassification (Note)	(1,365)
Balance as of December 31, 2019	3,928

Note: Reclassification to Property, plant and equipment.

(3) Cost

(Millions of yen)

Balance as of January 1, 2018	9,163
Balance as of December 31, 2018	9,038
Balance as of December 31, 2019	7,257

(4) Accumulated depreciation and accumulated impairment losses

(Millions of yen)

Balance as of January 1, 2018	3,758
Balance as of December 31, 2018	3,656
Balance as of December 31, 2019	3,329

(5) Fair value

(Millions of yen)

	2019	2018
Fair value	5,583	7,407

The fair value of investment property as of December 31, 2019 and 2018 is mainly based on appraisal values calculated by independent real estate appraisers, which are typically determined by the appraisal values derived from the discounted cash flow method or observable market values of similar assets. The appraised values are all categorized as Level 3 of the fair value hierarchy. The levels of the fair value hierarchy are described in Note “20. Financial instruments”.

14. Investments accounted for using the equity method

(1) Major associates accounted for using the equity method of the Group

Major associates accounted for using the equity method of the Group as of December 31, 2019 and 2018 are as follows.

Company name	Location	Main business	Percentage of voting rights (%)	
			2019	2018
TMT Machinery, Inc. (Note)	Chuo-ku, Osaka city Osaka-hu	Manufacturing, sales and others of synthetic fiber machinery and systems	33.0	33.0
Harmonic Drive Systems Inc.	Shinagawa-ku, Tokyo	Production and sales of mechatronics products in industrial robots and others	19.0	19.0

Note: The Group accounts investments in Harmonic Drive Systems Inc. (the "Associate") using the equity method, although the percentage of voting rights the Group holds over the Associate is less than 20%, due to the fact that the Group owns share options issued by the Associate, and therefore has significant influence over it.

(2) Investments in significant associates for the Group

There were no investments in significant associates for the Group as of December 31, 2019 and 2018.

(3) Investments in non-significant associates for the Group

(Millions of yen)

	2019	2018
The Group’s share of profit for the year	2,864	9,181
The Group’s share of other comprehensive income	328	677
The Group’s share of comprehensive income	3,192	9,858
Carrying amount of investments in associates	31,952	29,641

(4) Reporting date of associates accounted for using the equity method

The reporting date is March 31 for four associates accounted for using the equity method. The reporting date is June 30 for one associate accounted for using the equity method. The reporting date is November 30 for one associates accounted for using the equity method. The Group uses their provisional financial statements on the consolidated reporting date, December 31, because it is impracticable to conform their reporting dates to the Group’s reporting date.

15. Trade and other payables

(1) Trade payables

Trade payables as of December 31, 2019 and 2018 consist of the following:

(Millions of yen)

	2019	2018
Accounts payable	14,762	16,806
Notes payable	1,590	2,195
Electronically recorded obligations	28,668	31,296
Total	45,021	50,297

(2) Other payables

Other payables as of December 31, 2019 and 2018 consist of the following:

(Millions of yen)

	2019	2018
Accounts payable-others	7,146	4,806
Accrued expenses	2,688	2,233
Electronically recorded obligations-equipment	3,057	3,130
Others	1,514	1,640
Total	14,405	11,809

16. Provisions

(1) Details of provisions

Provisions as of December 31, 2019 and 2018 consist of the following:

(Millions of yen)

	2019	2018
Current liabilities	1,162	1,625

(2) Changes in provisions

(Millions of yen)

	Provision for product warranties	Provision for losses on order received	Total
Balance as of January 1, 2019	946	680	1,625
Additional provisions made during the year	250	169	419
Provisions used during the year	(210)	(448)	(658)
Provisions reversed during the year	(21)	(203)	(224)
Exchange differences on translation of foreign operations	(1)	—	(1)
Balance as of December 31, 2019	964	197	1,162

(3) Overview of the provisions and the expected timing of resulting outflow of economic resources

1) Provision for product warranties

To provide against the payment of repair costs and other costs that may be incurred after the delivery of products, the costs are separately estimated and recorded as a provision for product warranties. Outflows of economic resources are expected to occur within one year.

2) Provision for losses on orders received

To provide against future losses on contracts received, the expected losses on the contracts at the end of the fiscal year are separately estimated and recorded as a provision for loss on orders received. Outflows of economic resources are expected to occur within one year.

17. Bonds, borrowings and lease liabilities

(1) Details of bonds and borrowings

Bonds and borrowings as of December 31, 2019 and 2018 consist of the following:

(Millions of yen)

	2019	2018
Current liabilities		
Short-term borrowings	30,496	33,835
Current portion of long-term borrowings	223	232
Total	30,719	34,067
Non-current liabilities		
Long-term borrowings	3,235	1,271
Bonds	9,981	9,972
Total	13,217	11,243

(2) Bonds

The issuance of bonds is summarized as follows:

(Millions of yen)

Company	Name	Issue date	Balance as of December 31, 2019	Balance as of December 31, 2018	Coupon rate (%)	Collateral	Maturity date
Nabtesco Corporation	2nd series of unsecured straight bonds (with inter-bond pari passu clauses)	December 13, 2016	9,981	9,972	0.14	Unsecured	December 13, 2021

(3) Borrowings

Weighted average interest rates on “Short-term borrowings”, “Current portion of long-term borrowings” and “Long-term borrowings” were 0.43%, 0.59% and 1.86%, respectively, for the year ended December 31, 2019. The repayment terms of “Long-term borrowings” are from 2021 to 2026.

(4) Changes in liabilities arising from financial activities

The changes in liabilities arising from financial activities are as follows:

	Short-term borrowings	Long-term borrowings (Note 1)	Bonds	Lease liabilities (Note 2)	Derivatives (Note 3)	Total
Balance as of January 1, 2018	16,132	1,626	9,963	—	—	27,721
Changes from financing cash flow	18,023	(119)	—	—	—	17,904
Exchange differences on translation of foreign operations	(320)	(3)	—	—	—	(323)
Others	—	—	9	—	—	9
Balance as of December 31, 2018	33,835	1,503	9,972	—	—	45,310
Increase by adoption of IFRS 16	—	—	—	9,233	—	9,233
Changes from financing cash flow	(3,106)	1,921	—	(2,477)	—	(3,662)
Additions to right-of-use assets	—	—	—	2,155	—	2,155
Exchange differences on translation of foreign operations	(233)	35	—	(107)	—	(306)
Change in fair value	—	—	—	—	67	67
Others	—	—	9	—	—	9
Balance as of December 31, 2019	30,496	3,458	9,981	8,804	67	52,807

Note: 1. Long-term borrowings include current portion of long-term borrowings.

2. Lease liabilities include current portion of lease liabilities.

3. Derivatives is owned to hedge a currency fluctuation risk with borrowings in foreign currency.

18. Employee benefits

(1) Overview of the adopted post-employment benefit plans

The Company and some of its consolidated subsidiaries have adopted funded and unfunded defined benefit plans as well as defined contribution plans for employee's post-retirement benefits. Defined benefit plans provide lump-sum payments or pensions based on positions and service periods of employees.

Funded defined benefit plans are managed by independent pension funds from the Group, in compliance with laws and ordinances. The Group accumulates contributions that are actuarially calculated using certain rates of wages and salaries. The board of administration and pension fund trustees must operate the pension funds in the best priority to the benefit of its participants laws and ordinances are obliged to manage the plan assets based on predetermined policies.

(2) Defined benefit plans

The Group has defined benefit plans. The amounts of benefits are determined based on evaluation factors, such as the number of years of service, performance and job grades and titles.

1) Risks associated with defined benefit plans

The Group is exposed to various risks associated with defined benefit plans. Major risks are as follows. The Group is not exposed to significant concentration risk in respect of plan assets.

Changes in plan assets	Investments in equity instruments, debt instruments and other assets are exposed to fluctuation risk.
Changes in market yields on bonds	A decrease in market yields on bonds causes an increase in defined benefit obligations.

2) Amounts in the consolidated statement of financial position

(Millions of yen)

	2019	2018
Present value of defined benefit obligations	32,882	29,866
Fair value of plan assets	(23,625)	(21,099)
Effect of the asset ceiling	—	114
Net defined benefit liabilities	9,569	9,142
Net defined benefit assets	(312)	(261)
Net amount of liabilities and assets in the consolidated statement of financial position	9,257	8,881

3) Changes in the present value of defined benefit obligations

(Millions of yen)

	2019	2018
Balance at the beginning of the year	29,866	29,227
Current service cost	1,384	1,403
Interest cost	211	167
Remeasurement		
Actuarial gains and losses arising from changes in demographic assumptions	(108)	—
Actuarial gains and losses arising from changes in financial assumptions	1,963	(296)
Actuarial gains and losses arising from experience adjustments	(222)	308
Benefits paid	(209)	(292)
Exchange differences on translation of foreign operations	(3)	(651)
Balance at the end of the year	32,882	29,866

The weighted average duration of defined benefit obligations was 13.9 years as of the year ended December 31, 2019 and 13.4 years as of the year ended December 31, 2018.

4) Changes in the fair value of plan assets

(Millions of yen)

	2019	2018
Balance at the beginning of the year	21,099	20,858
Interest income	168	129
Remeasurement		
Income from plan assets	1,266	(474)
Return on plan assets excluding interest income	855	842
Contributions by employees	425	419
Benefits paid	(147)	(260)
Exchange differences on translation of foreign operations	(41)	(416)
Balance at the end of the year	23,625	21,099

The Group plans to contribute ¥1,275 million to the defined benefit plans for the year ending December 31, 2020.

5) Details of plan assets

(Millions of yen)

	2019			2018		
	With quoted market prices in active markets	Without quoted market prices in active markets	Total	With quoted market prices in active markets	Without quoted market prices in active markets	Total
Cash and cash equivalents	3,005	—	3,005	2,602	—	2,602
Equity instruments						
Domestic shares	226	281	508	180	259	440
Foreign shares	6,968	281	7,250	5,959	259	6,218
Debt instruments						
Domestic bonds	—	1,245	1,245	—	1,187	1,187
Foreign bonds	9,072	301	9,372	8,169	285	8,454
Others	—	2,245	2,245	—	2,198	2,198
Total	19,271	4,354	23,625	16,910	4,189	21,099

Plan assets are managed for the purpose of securing the sustainability of defined benefit plans. Risk and return targets of investments in plan assets are determined as policies. The investment results are appropriately monitored, and the policies are regularly reviewed.

6) Changes in adjustments for asset ceiling

(Millions of yen)

	2019	2018
Balance at the beginning of the year	114	618
Interest revenue	1	4
Remeasurement		
Effect of limiting a net defined benefit asset to the asset ceiling	(115)	(493)
Exchange differences on translation of foreign operations	(0)	(16)
Balance at the end of the year	—	114

7) Amounts in the consolidated statement of profit or loss

(Millions of yen)

	2019	2018
Defined benefit cost	1,000	1,018

8) Significant actuarial assumptions

Significant actuarial assumptions as of December 31, 2019 and 2018 are as follows:

	2019	2018
Discount rate	0.3%	0.7%

The following table shows a sensitivity analysis of the impacts of changes in the aforementioned actuarial assumptions on defined benefit obligations as of December 31, 2019 and 2018. The sensitivity analysis based on the premise that the other actuarial assumptions are unchanged. Accordingly, changes in other factors on multiple assumptions may influence to defined benefit obligations.

(Millions of yen)

	2019	2018
0.25% increase in discount rate	(1,065)	(917)
0.25% decrease in discount rate	1,136	974

9) Asset-liability matching strategy adopted by the Group

The Group's investment strategy is to reduce discrepancies between assets and liabilities by setting expected medium and long-term investment returns above discount rates. This investment strategy primarily focuses on mitigating the investment risk, rather than maximizing the profit. This investment policy is expected to generate income sufficient to fulfill long-term contracts.

(3) Defined contribution plans

(Millions of yen)

	2019	2018
Amounts recognized as an expense for defined contribution plans for the year	873	1,045

19. Income taxes

(1) Income taxes

1) Income taxes recognized in profit or loss

(Millions of yen)

	2019	2018
Current tax expense for the year		
Current fiscal year	8,369	7,457
Recognition of previously unrecognized tax losses	(58)	(68)
Sub-total	8,311	7,389
Deferred tax expense for the year		
Origination and reversal of temporary differences	(283)	(392)
Sub-total	(283)	(392)
Total	8,028	6,997

2) Reconciliation of effective statutory tax rates and average effect tax rates

Reconciliation of effective statutory tax rates and average effective tax rates of the Group is as follows. The average effective tax rates represent the percentage of income tax expense to profit before tax.

	2019	2018
Effective statutory tax rate for the year	30.6	30.9
(Adjustments)		
Effect of tax rates in foreign jurisdictions	(2.4)	(1.7)
Changes in unrecognized deferred tax assets	0.7	0.8
Non-deductible expenses for tax purposes such as meals and entertainment	0.8	0.5
Share of profit of investments accounted for using the equity method	(3.1)	(9.5)
Tax credit	(3.3)	(4.5)
Undistributed earnings on foreign operations and associates	1.6	1.6
Impairment of goodwill	1.4	5.4
Impact of tax audit	1.1	—
Others	1.3	(0.2)
Average effective tax rate for the year	28.7	23.3

(2) Deferred taxes

1) Details of changes in deferred tax assets and liabilities

Changes in deferred tax assets and liabilities consist of the following:

2019

(Millions of yen)

	Balance as of January 1, 2019	Amount recognized in profit or loss	Amount recognized in other comprehensive income	Balance as of December 31, 2019
Deferred tax assets				
Loss allowance	15	(11)	—	3
Loss on valuation of inventories	138	28	—	167
Accrued expenses	567	(32)	—	535
Provision for product warranties	217	(14)	—	202
Other current liabilities	734	36	—	770
Net defined benefit liabilities	2,687	2	42	2,731
Loss on valuation of investments in associates	164	2	—	166
Loss on valuation of golf club membership rights	25	(5)	—	20
Tax loss carried forward	943	(92)	—	851
Others (assets)	1,376	(562)	—	814
Total	6,865	(649)	42	6,258
Deferred tax liabilities				
Deferred taxation on government grants for acquisition of property, plant and equipment	1,258	(17)	—	1,240
Other financial assets - valuation differences due to changes in fair value	1,585	(9)	127	1,703
Unrealized gains on land	971	—	—	971
Adjustments for taxable income related to foreign operations (inventories)	300	(51)	—	250
Adjustments for taxable income related to foreign operations (investments in associates)	1,157	(1,157)	—	—
Undistributed earnings on foreign operations and associates	3,087	468	—	3,555
Identifiable intangible assets	844	(163)	—	682
Others (liabilities)	532	(59)	57	530
Total	9,734	(988)	185	8,931
Net deferred tax assets (liabilities)	(2,869)	339	(142)	(2,673)

Note: The difference between the net amount of deferred tax assets and liabilities recognized in profit or loss and the sub-total of deferred tax expense in “(1) Income taxes 1) Income taxes recognized in profit or loss” is a result of changes in exchange rates and other factors.

2018

(Millions of yen)

	Balance as of January 1, 2018	Amount recognized in profit or loss	Amount recognized in other comprehensive income	Balance as of December 31, 2018
Deferred tax assets				
Loss allowance	22	(7)	—	15
Loss on valuation of inventories	104	35	—	138
Accrued expenses	584	(17)	—	567
Provision for product warranties	157	60	—	217
Other current liabilities	748	(14)	—	734
Net defined benefit liabilities	2,691	(14)	10	2,687
Loss on valuation of investments in associates	164	—	—	164
Loss on valuation of golf club membership rights	31	(6)	—	25
Tax loss carried forward	440	503	—	943
Others (assets)	1,268	108	—	1,376
Total	6,207	649	10	6,865

Deferred tax liabilities				
Deferred taxation on government grants for acquisition of property, plant and equipment	1,353	(95)	—	1,258
Other financial assets - valuation differences due to changes in fair value	1,598	(6)	(7)	1,585
Unrealized gains on land	971	—	—	971
Adjustments for taxable income related to foreign operations (inventories)	272	28	—	300
Adjustments for taxable income related to foreign operations (investments in associates)	996	160	—	1,157
Undistributed earnings on foreign operations and associates	2,621	466	—	3,087
Identifiable intangible assets	1,019	(175)	—	844
Others (liabilities)	544	(109)	97	532
Total	9,375	270	90	9,734
Net deferred tax assets (liabilities)	(3,168)	379	(80)	(2,869)

Note: The difference between the net amount of deferred tax assets and liabilities recognized in profit or loss and the sub-total of deferred tax expense in "(1) Income taxes 1) Income taxes recognized in profit or loss" is a result of changes in exchange rates and other factors.

2) Deductible temporary differences and unused tax losses for which no deferred tax assets are recognized

Deductible temporary differences and unused tax losses for the year for which no deferred tax assets are recognized are as follows. Deductible temporary differences do not expire under the current tax regulations. Deferred tax assets relating to these items are not recognized as it is not probable that future taxable income will be available against which the Group can utilize the benefits therefrom.

(Millions of yen)

	2019	2018
Deductible temporary differences	545	798
Tax loss carry forward	7,353	10,380
Total	7,898	11,178

Tax losses for the year for which no deferred tax assets are recognized expire as follows:

(Millions of yen)

	2019	2018
1st year	607	179
2nd year	641	754
3rd year	—	740
4th year	19	—
5th year	38	19
More than 5 years	6,048	8,688
Total	7,353	10,380

20. Financial instruments

To avert or mitigate the financial risks (credit risk, liquidity risk and market risk) associated with business activities, the Group manages financial risks as follows:

(1) Credit risk management

Credit risk is the risk that the Group incurs financial losses due to the default of business partners on obligations.

The credit risk on cash and cash equivalents and time deposits with deposit terms of over three months included in other financial assets (current) is limited, because the Group has such transactions with functional institutions only with high credit rating.

Trade receivables, contract assets and other receivables are exposed to credit risk of business partners. The Group manages credit risk on trade receivables consisting of notes receivables, accounts receivables and contract assets by setting credit lines for business partners in accordance with its internal rules on credit risk management. Credit lines for new business partners are set at the inception of transactions, and those for existing business partners are set through internal deliberation and approval procedures while their credit conditions are monitored regularly. For business partners with unfavorable credit conditions, the Group takes measures, such as receiving guarantee deposits and collateral, as necessary. The Group recognizes and measures expected credit losses, taking into account in the microeconomic situation, such as the number of corporate bankruptcies, in addition to the information on the business partners' business conditions and financial positions through the credit risk management. Accounts receivable-others included in other receivables are also exposed to credit risk of business partners, but the Group has determined that such credit risk is limited because most of the settlements are scheduled in the short term.

The Group calculates the amount of loss allowance separately for trade receivables, contract assets and other receivables.

The Group always records a loss allowance for the trade receivables and contract assets at an amount equal to the lifetime expected credit losses. The Group records a loss allowance for other receivables at an amount equal to 12-month expected credit losses in principle. However, if the credit risk on other receivables has increased significantly, the Group estimates the lifetime expected credit losses for each receivable and records loss allowance. The Group determines whether the credit risk has increased significantly or not based on whether there are significant increases in the risk of a default on the financial assets since initial recognition. When assessing the change in the risk of a default, the Group takes into account the following:

- financial difficulty of business partners due to the deterioration of their business performance;
- significant delinquency; and
- significant change in external credit rating.

When the Group determined that the collection of the whole of part of the asset is impossible or extraordinarily difficult, such financial assets are determined to be in default and treated as credit-impaired financial assets.

The Group’s maximum exposure to credit risk is the carrying amount of financial assets presented in the consolidated statement of financial position. The Group is not exposed to excessively concentrated credit risk for specific business partners.

1) Exposure to credit risk

Changes in trade receivables and loss allowance are as follows:

2019

(Millions of yen)

Trade receivables	With loss allowance measured at an amount equal to lifetime expected credit losses
Balance as of January 1, 2019	75,070
Increase and collections (Net)	(4,989)
Exchange differences on translation of foreign operations	(405)
Balance as of December 31, 2019	69,676

(Millions of yen)

Loss allowance for trade receivables	With loss allowance measured at an amount equal to lifetime expected credit losses
Balance as of January 1, 2019	424
Increase due to recognition	130
Decrease (Written-down)	(12)
Decrease (Others)	(35)
Exchange differences on translation of foreign operations	(6)
Balance as of December 31, 2019	501

The amount of loss allowance for contract assets and other receivables excluding trade receivables is not described because it is not material.

The amounts of provision for, and reversal of, loss allowance are included in "Selling, general and administrative expenses" in the consolidated statement of profit or loss.

2018

(Millions of yen)

Trade receivables	With loss allowance measured at an amount equal to lifetime expected credit losses
Balance as of January 1, 2018	74,718
Increase and collections (Net)	1,908
Decrease (Others)	(379)
Exchange differences on translation of foreign operations	(1,177)
Balance as of December 31, 2018	75,070

(Millions of yen)

Loss allowance for trade receivables	With loss allowance measured at an amount equal to lifetime expected credit losses
Balance as of January 1, 2018	497
Increase due to recognition	53
Decrease (Written-down)	(20)
Decrease (Others)	(78)
Exchange differences on translation of foreign operations	(28)
Balance as of December 31, 2018	424

The amount of loss allowance for contract assets and other receivables excluding trade receivables is not described because it is not material.

The amounts of provision for, and reversal of, loss allowance are included in "Selling, general and administrative expenses" in the consolidated statement of profit or loss.

(2) Liquidity risk management

Liquidity risk is the risk that the Group becomes unable to pay for the settlement of financial liabilities on due dates.

The Group manages liquidity risk related to raising funds by using financing plans prepared and updated by the Accounting and Finance Department in a timely manner based on reports from respective departments. Furthermore, in certain regions, regional headquarters or regional bases have implemented a cash management system to intensively and efficiently manage funds retained in their region, thereby making efforts to mitigate liquidity risk.

The maturity analysis of the Group’s financial liabilities as of December 31, 2019 and 2018 is as follows:

(Millions of yen)

2019	Carrying amount	Contractual cash flows	Within 1 year	1-2 years	2-3 years	3-4 years	4-5 years	Over 5 years
Trade payables	45,021	45,021	45,021	—	—	—	—	—
Other payables	11,720	11,720	11,720	—	—	—	—	—
Borrowings	33,954	34,202	30,813	306	294	2,435	203	152
Bonds	9,981	10,028	14	10,014	—	—	—	—
Lease liabilities	8,804	9,408	2,303	1,519	740	555	434	3,857
Total	109,480	110,379	89,870	11,839	1,034	2,990	637	4,009

(Note) The amount of derivative financial liabilities is not described because it is insignificant.

(Millions of yen)

2018	Carrying amount	Contractual cash flows	Within 1 year	1-2 years	2-3 years	3-4 years	4-5 years	Over 5 years
Trade payables	50,297	50,297	50,297	—	—	—	—	—
Other payables	9,576	9,576	9,576	—	—	—	—	—
Borrowings	35,338	35,443	34,165	225	254	241	203	355
Bonds	9,972	10,042	14	14	10,014	—	—	—
Total	105,183	105,358	94,051	239	10,268	241	203	355

(3) Market risk management

1) Foreign currency risk

The Group operates its businesses globally and sells its products overseas. Therefore, the Group is exposed to the fluctuation risk of exchange rates ("foreign currency risk") associated with the translation of trade receivables, trade payables and other items generated from transactions in currencies other than the functional currency, using the exchange rates at the end of the reporting period.

The Group’s trade receivables, trade payables and other items are denominated in foreign currencies are exposed to foreign currency risk. The Group hedges the risk by ascertaining the foreign currency-denominated balances by currency and by month, and by using forward exchange contracts, currency swap and other hedging instruments for the netted positions in principle. For this reason, the Group has determined that its exposure to the foreign currency risk is limited.

Derivatives

The overview of the main derivatives used by the Group to control foreign currency risk as of December 31, 2019 and 2018 is as follows:

Derivative transactions to which hedge accounting is not applied

(Millions of yen)

	2019			2018		
	Contract amount	Over 1 year	Fair value	Contract amount	Over 1 year	Fair value
Forward exchange contract (put) USD	1,294	—	(13)	1,179	—	24
Currency and interest rate swap Receipt and pay in foreign currency	2,152	2,152	67	—	—	—

Note: There are no derivative transactions to which hedge accounting is applied.

Sensitivity analysis on exchange rates

In case each currency excluding the functional currency appreciates against the functional currency by 1% at the end of each consolidated fiscal year, impacts on the profit before tax and equity are as follows.

This sensitivity analysis on exchange rates shows the impact caused by the translation of foreign currency-denominated financial instruments (including intragroup transactions) for which exchange differences are recognized in profit or loss. The analysis does not include the impacts of revenue and expenses denominated in foreign currencies. This analysis is based on fluctuations in foreign exchanges rates that the Group considers to be reasonably possible at the end of the consolidated fiscal year and on the premise that the other factors do not change.

(Millions of yen)

Currency	2019		2018	
	Profit before tax	Equity	Profit before tax	Equity
USD	20	14	37	26
CNY	50	35	48	33
EUR	16	12	20	14
JPY	(29)	(26)	(56)	(46)

Note: The amount of JPY is related to yen-denominated financial assets and liabilities held by foreign operations.

2) Interest rate risk

Interest rate risk is defined as the risk of changes in the fair values of financial instruments or future cash flows generated from financial instruments due to fluctuations in market interest rates. A part of the Group's interest-bearing debt is borrowings with a floating rate of interest. As the amount of the interest is affected by the fluctuations in market interest rates, the Group is exposed to the interest rate risk that may change the future cash flows of the interest.

The Group manages its surplus funds in excess of the amount of floating-interest borrowings mainly by making short-term deposits. When the interest rates rise due to changes in the financial market environment in the future, the Group is able to cut future financing costs by using the surplus funds as a source of repayment to reduce the interest-bearing debt and using interest rate swap.

Therefore, the Company believes that the interest rate risk at the end of the consolidated fiscal year is not material. The Group has determined that the exposure to interest rate risk is limited.

3) Price risks

The Group is exposed to the risk of changes in market prices arising from equity instruments (shares). The equity instruments held by the Group mainly consist of corporate shares. The Group regularly monitors the fair value and the financial condition of the issuer (business partner) and takes into account the relationship with the business partner, thereby reviewing its shareholding status.

Sensitivity analysis of the price risk is not described because the Group believes the effect of the price risk to profit for the year and other comprehensive income is not material.

(4) Fair value of financial instruments

1) Method of measuring fair value measurement

(a) Financial assets measured at amortized cost

i) Other financial assets

The fair value of other financial assets is mainly classified by certain periods of time and assessed based on the present value calculated by discounting their cash flows with an interest rate that reflects the credit risk.

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

i) Golf club memberships

The fair value of golf club memberships is mainly based on market prices. Golf club memberships are included in "Other financial assets" in the consolidated statement of financial position.

ii) Derivative financial assets

The fair value of share options is mainly measured based on Monte Carlo simulation considering market price, historical volatility, etc. The fair value of forward exchange contracts is measured mainly based on forward exchange rates. The fair value of currency and interest rate swap is measured by the price presented by a financial institution in business. Derivative financial assets are included in "Other financial assets" in the consolidated statement of financial position.

(c) Financial assets measured at fair value through other comprehensive income

Investment securities

Investment securities are equity instruments mainly consisting of shares. The fair value of listed shares is determined based on market prices at shares exchanges, and the fair value of unlisted shares is determined using valuation techniques based on the market prices of similar entities or net asset values. The investment securities are included in "Other financial assets" in the consolidated statement of financial position.

(d) Financial liabilities measured at amortized cost

Bonds and borrowings

The fair value of bonds issued by the Company is assessed based on market prices. The fair value of borrowings is determined as the present value calculated by discounting the total of principal and interest with an assumed interest rate for similar new borrowings.

(e) Financial liabilities measured at fair value through profit or loss

Derivative financial liabilities

The fair value of forward exchange contracts is measured based on forward exchange rates. Derivative financial liabilities are included in "Other financial liabilities" in the consolidated statement of financial position.

2) Carrying amount and fair value of financial instruments by classification

The carrying amount and fair value of financial assets and financial liabilities included in the consolidated statement of financial position are as follows:

(Millions of yen)

	2019		2018	
	Carrying amount	Fair value	Carrying amount	Fair value
Financial assets				
Financial assets measured at amortized cost				
Other financial assets	6,790	6,790	1,664	1,664
Total financial assets measured at amortized cost	6,790	6,790	1,664	1,664
Financial assets measured at fair value through profit or loss				
Golf club memberships	149	149	155	155
Derivative financial assets	1,252	1,252	750	750
Total financial assets measured at fair value through profit or loss	1,401	1,401	905	905
Financial assets measured at fair value through other comprehensive income				
Investment in securities	7,771	7,771	7,269	7,269
Total financial assets measured at fair value through other comprehensive income	7,771	7,771	7,269	7,269
Total financial assets	15,962	15,962	9,838	9,838
Financial liabilities				
Financial liabilities measured at amortized cost				
Bonds and borrowings	43,936	43,953	45,310	45,340
Total financial liabilities measured at amortized cost	43,936	43,953	45,310	45,340
Financial liabilities measured at fair value through profit or loss				
Derivative financial liabilities	13	13	—	—
Total financial liabilities measured at fair value through profit or loss	13	13	—	—
Total financial liabilities	43,948	43,966	45,310	45,340

The Group does not have any financial assets and liabilities irrevocably designated at initial recognition as financial assets and liabilities measured at fair value through profit or loss. Financial instruments measured at amortized cost, cash and equivalents, trade receivables, contract assets, other receivables, trade payables and other payables, are not included in the table above, because they are settled in the short-term and their book values reasonably approximate their fair values.

3) Classification by the levels in the fair value hierarchy

The fair value of financial assets and financial liabilities is measured and analyzed on a recurring basis as follows. These fair value amounts are categorized into three levels of the fair value hierarchy based on the inputs (available market data) used in valuation techniques. The respective levels are defined as follows:

Level 1: Fair value measured at quoted prices in active markets

Level 2: Fair value calculated, either directly or indirectly, using observable prices other than Level 1

Level 3: Fair value calculated using valuation techniques based on unobservable inputs

Transfers between the levels of the fair value hierarchy are recognized on the dates when events or changes causing the transfers occur.

The fair value hierarchy of financial assets and financial liabilities measured at fair value on a recurring basis as of December 31, 2019 and 2018 are as follows:

(Millions of yen)

2019	Level 1	Level 2	Level 3	Total
Other financial assets				
Financial assets measured at fair value through profit or loss	—	216	1,186	1,401
Financial assets measured at fair value through other comprehensive income	4,930	—	2,841	7,771
Other financial liabilities				
Financial liabilities measured at fair value through profit or loss	—	13	—	13

(Millions of yen)

2018	Level 1	Level 2	Level 3	Total
Other financial assets				
Financial assets measured at fair value through profit or loss	—	179	727	905
Financial assets measured at fair value through other comprehensive income	4,943	—	2,326	7,269

The fair value of financial instruments measured at amortized cost disclosed in “2) Carrying amounts and fair value of financial instruments by classification” are categorized as Level 2 for bonds and mainly Level 3 for the other instruments.

There were no transfers between Level 1, Level 2 and level 3 for the years ended December 31, 2019 and 2018.

No significant assets or liabilities were measured at fair value on a non-recurring basis as of December 31, 2019 and 2018.

4) Information on fair value measurement categorized as Level 3

(a) Valuation techniques and inputs

Other financial assets categorized as Level 3 are mainly unlisted shares and share options. The fair value of unlisted shares is determined using valuation techniques based on market prices of similar entities or net asset values. In measuring the fair value of unlisted shares, unobservable inputs such as valuation multiples are used. The fair value of share options is mainly determined based on Monte Carlo simulation using market price, historical volatility, etc. as input.

(b) Valuation process

The fair value of financial instruments categorized as Level 3 is measured in accordance with relevant internal rules and regulations. In measuring the fair value, the Group uses valuation techniques and inputs that most appropriately reflect the nature, characteristics and risks of the financial instruments to be measured.

(c) Information on the sensitivity of the recurring fair value measurement categorized as Level 3

Significant unobservable inputs related to the measurement of the fair value of financial instruments categorized as Level 3 on a recurring basis include an EBIT ratio based on financial forecast, illiquidity discount and historical volatility. The fair value increases (decreases) when the EBIT ratio and historical volatility increases (decreases). The fair value decreases (increases) when the illiquidity discount increases (decreases).

There is no significant impact on the fair value of financial instruments categorized as Level 3 even if unobservable inputs are changed to reasonable alternative assumptions.

(d) Reconciliation from the beginning balances to the ending balances for financial instruments categorized as Level 3

(Millions of yen)

	2019	2018
Balance at the beginning of the year	3,053	1,786
Total gains or losses	798	439
Profit for the year (Note 1)	459	101
Other comprehensive income for the year (Note 2)	339	338
Purchase	202	878
Sales	(27)	(50)
Balance at the end of the year	4,026	3,053

Note: 1. Gains and losses recognized in profit or loss for the year are included in “Finance costs" in the consolidated statement of profit or loss.

2. Gains and losses recognized in other comprehensive income are included in “Net changes in financial assets measured at fair value through other comprehensive income” in the consolidated statement of comprehensive income.

(5) Other financial assets

The details of other financial assets as of December 31, 2019 and 2018 are as follows:

(Millions of yen)

	2019	2018
Time deposits with deposit terms of more than three months	4,722	238
Golf club memberships	149	155
Investment securities	7,771	7,269
Others	3,320	2,176
Total	15,962	9,838
Current	4,752	280
Non-current	11,210	9,558
Total	15,962	9,838

Investment securities held by the Group are equity instruments mainly consisting of corporate shares. The investment securities are held mainly to facilitate business relationships, and are not held for short-term trading. Therefore, they are measured at fair value through other comprehensive income. The details of major investments and their fair values as of December 31, 2019 and 2018 are as follows:

(Millions of yen)

	2019	2018
Central Japan Railway Company	2,200	2,317
SINFONIA TECHNOLOGY CO., LTD.	638	615
WEST JAPAN RAILWAY TECHSIA Co., Ltd.	603	423
NABCO KANAGAWA PTY,LTD.	547	506
WEST JAPAN RAILWAY TECHNOS Co., Ltd.	508	480
Kyodo Yushi Co., Ltd	512	460
East Japan Railway Company	498	490
Keio Corporation	443	426
WEST JAPAN RAILWAY COMPANY	425	349
Others	1,397	1,204
Total	7,771	7,269
Dividend income	79	69

The Group periodically reviews capital efficiency and its business partnerships. As a result, the Group sells and derecognizes some financial assets measured at fair value through other comprehensive income. Equity instruments measured at fair value through other comprehensive income that the Group sold for the years ended December 31, 2019 and 2018 are as follows.

(Millions of yen)

	2019	2018
Fair value	101	198
Cumulative gains (losses)	53	(33)
Dividend income	1	4

The Group recognizes the cumulative gains or losses on the financial instruments measured at fair value through other comprehensive income as other components of equity. When the Group disposes of and derecognizes the financial instruments, or determines that the fair value of the financial instruments has apparently declined, it transfers them from other components of equity to retained earnings. The amount of cumulative gains or losses in other comprehensive income transferred to retained earnings were ¥32 million and ¥-20 million for the years ended December 31, 2019 and 2018, respectively.

21. Capital and other components of equity

(1) Total number of shares authorized and total number of shares issued

The total number of shares authorized and the total number of shares issued are as follows:

	Total number of shares authorized (shares)	Total number of shares issued (shares)
As of January 1, 2018	400,000,000	125,133,799
Increase	—	—
Decrease	—	—
As of December 31, 2018	400,000,000	125,133,799
Increase	—	—
Decrease	—	—
As of December 31, 2019	400,000,000	125,133,799

Note: 1. Shares issued by the Company are no par value ordinary shares.

2. Issued shares are fully paid-up.

(2) Share premium

Share premium is the amount generated from equity transactions and not incorporated into share capital.

The Japanese Companies Act ("Companies Act") stipulates that no less than 50% of the amount of payment received or the value of property delivered by the issuance of shares shall be incorporated into share capital and the remaining amount shall be incorporated into legal capital surplus included in share premium. In addition, the Companies Act provides that legal capital surplus may be reclassified to share capital by a resolution of a shareholders' meeting.

(3) Retained earnings

Retained earnings consist of legal retained earnings and other retained earnings. Other retained earnings are mainly an accumulation of profit earned by the Group.

Under the Companies Act, a company shall accumulate an amount equivalent to one-tenth of the dividends paid from surplus as legal capital surplus or legal retained earnings until the total amount accumulated is equivalent to up to one-fourth of the amount of share capital. The accumulated legal retained earnings may be apportioned to offset deficits. In addition, legal retained earnings may be reversed by a resolution of a shareholders' meeting.

(4) Treasury shares

Changes in the number and balance of treasury shares are as follows:

	Number of shares (shares)	Amount (millions of yen)
As of January 1, 2018	1,888,247	3,600
Acquisitions through purchasing request of shares less than one unit	749	3
Decrease through Board Benefit Trust	(18,736)	(62)
Decrease through exercise of share options	(55,800)	(140)
Others	(660,057)	(496)
As of December 31, 2018	1,154,403	2,903
Acquisitions through purchasing request of shares less than one unit	795	3
Decrease through Board Benefit Trust	(45,836)	(153)
Decrease through exercise of share options	(96,000)	(217)
As of December 31, 2019	1,013,362	2,536

Note: The details of the share option and the Board Benefit Trust are described in Note "26. Share-based payment". The Group discloses Nabtesco share owned by Board Benefit Trust as treasury shares on equity. The balance of the treasury shares was ¥767 million and the number of the treasury shares was 229,828 shares as of December 31, 2019.

(5) Other components of equity

1) Remeasurements of net defined benefit liabilities

Remeasurements of net defined benefit liabilities mainly consist of actuarial gains and losses on defined benefit obligations and returns on plan assets (excluding amount included in interest income from plan assets).

2) Net changes in financial assets measured at fair value through other comprehensive income

Net changes in financial assets measured at fair value through other comprehensive income are the amount of changes in the fair value of equity financial instruments measured at fair value through other comprehensive income.

3) Exchange differences on translation of foreign operations

Exchange differences on translation of foreign operations are exchange differences that arise when consolidating the foreign currency-denominated financial statements of foreign operations.

(6) Dividends

Dividend payments during the years ended December 31, 2019 and 2018 are as follows:

2019

Resolution	Total amount of dividends (millions of yen)	Dividend per share (yen)	Record date	Effective date
Ordinary General Meeting of Shareholders on March 26, 2019 (Note 1)	4,597	37	December 31, 2018	March 27, 2019
Board of Directors' Meeting on July 31, 2019 (Note 2)	4,477	36	June 30, 2019	August 30, 2019

Note:1. The total amount of dividends determined by the Ordinary General Meeting of Shareholders on March 26, 2019 includes the dividends of ¥10 million on the Company's shares held by the trust account of Mizuho Trust & Banking Co., Ltd. in relation to the Board Benefit Trust (BBT).

2. The total amount of dividends determined by the Board of Directors Meeting on July 31, 2019 includes the dividends of ¥8 million on the Company's shares held by the trust account of Mizuho Trust & Banking Co., Ltd. in relation to the Board Benefit Trust (BBT).

Dividends whose record date is in the current fiscal year but whose effective date in the following year are as follow:

Resolution	Total amount of dividends (millions of yen)	Dividend per share (yen)	Record date	Effective date
Ordinary General Meeting of Shareholders on March 24, 2020	4,601	37	December 31, 2019	March 25, 2020

Note: The total amount of dividends determined by the Ordinary General Meeting of Shareholders on March 24, 2020 includes the dividends of ¥9 million on the Company's shares held by the trust account of Mizuho Trust & Banking Co., Ltd. in relation to the Board Benefit Trust (BBT).

2018

Resolution	Total amount of dividends (millions of yen)	Dividend per share (yen)	Record date	Effective date
Ordinary General Meeting of Shareholders on March 27, 2018 (Note 1)	4,720	38	December 31, 2017	March 28, 2018
Board of Directors' Meeting on July 31, 2018 (Note 2)	4,473	36	June 30, 2018	August 31, 2018

Note:1. The total amount of dividends determined by the Ordinary General Meeting of Shareholders on March 27, 2018 includes the dividends of ¥11 million on the Company's shares held by the trust account of Mizuho Trust & Banking Co., Ltd. in relation to the Board Benefit Trust (BBT).

2. The total amount of dividends determined by the Board of Directors Meeting on July 31, 2018 includes the dividends of ¥10 million on the Company's shares held by the trust account of Mizuho Trust & Banking Co., Ltd. in relation to the Board Benefit Trust (BBT).

Dividends whose record date is in the current fiscal year but whose effective date in the following year are as follow:

Resolution	Total amount of dividends (millions of yen)	Dividend per share (yen)	Record date	Effective date
Ordinary General Meeting of Shareholders on March 26, 2019	4,597	37	December 31, 2018	March 27, 2019

Note: The total amount of dividends determined by the Ordinary General Meeting of Shareholders on March 26, 2019 includes the dividends of ¥10 million on the Company's shares held by the trust account of Mizuho Trust & Banking Co., Ltd. in relation to the Board Benefit Trust (BBT).

(7) Other comprehensive income for the year

The amounts incurred during the year, reclassification adjustments to profit or loss and tax effects of items in comprehensive income for the years ended December 31, 2019 and 2018 are as follows:

2019

(Millions of yen)

	Before tax	Tax (expense) benefit	After tax
Items that will not be reclassified to profit or loss			
Remeasurements of net defined benefit liabilities (assets)	(232)	42	(189)
Net changes in financial assets measured at fair value through other comprehensive income	416	(127)	288
Share of other comprehensive income of investments accounted for using the equity method	386	(57)	328
Sub-total	570	(142)	427
Items that may be reclassified subsequently to profit or loss			
Exchange differences on translation of foreign operations	(919)	―	(919)
Sub-total	(919)	―	(919)
Total	(350)	(142)	(492)

Note: No reclassification adjustments arose from the above items.

2018

(Millions of yen)

	Before tax	Tax (expense) benefit	After tax
Items that will not be reclassified to profit or loss			
Remeasurements of net defined benefit liabilities (assets)	(28)	10	(18)
Net changes in financial assets measured at fair value through other comprehensive income	(23)	7	(16)
Share of other comprehensive income of investments accounted for using the equity method	774	(97)	677
Sub-total	724	(80)	643
Items that may be reclassified subsequently to profit or loss			
Exchange differences on translation of foreign operations	(2,628)	―	(2,628)
Sub-total	(2,628)	―	(2,628)
Total	(1,904)	(80)	(1,984)

Note: No reclassification adjustments arose from the above items.

(8) Capital management

The Group operates its business based on the targeted level of return on assets (ROA) and return on equity (ROE) in order to maintain and improve its market value. To prepare for sudden changes in the economic environment, it also aims to achieve an appropriate percentage of equity attributable to owners of the parent that can maintain high credit ratings to raise funds regardless of the financial situation surrounding the Group.

The Group's ROA, ROE, Percentage of equity attributable to owners of the parent for the years ended December 31, 2019 and 2018 are as follows.

	2019	2018
ROA	5.3	6.7
ROE	9.8	12.1
Percentage of equity attributable to owners of the parent	54.4	54.4

22. Revenue from contracts with customers

(1) Disaggregation of revenue

The Group's businesses are comprised of the Component Solutions Business, Transport Solutions Business, Accessibility Solutions Business and Others. The Board of Directors regularly makes decisions on the allocation of management resources and assesses its performance.

The Group presents revenue obtained through these businesses as sales. Sales are broken down by main products. The following table shows relationship between the disaggregated sales and the sales for the year ended December 31, 2019 by segment described in Note "5. Business segments".

The Group has no performance obligation as an agent.

(Millions of yen)

Business segments	Main products	2019	2018
Component Solutions Business	Precision reduction gear	54,941	65,803
	Hydraulic equipment	52,169	53,395
	Others	78	82
	Sub-total	107,188	119,280
Transport Solutions Business	Railroad vehicle equipment	30,280	31,207
	Aircraft equipment	22,796	18,526
	Commercial vehicle equipment	14,170	14,600
	Marine vessel equipment	10,848	9,777
	Others	5,899	7,754
	Sub-total	83,994	81,863
Accessibility Solutions Business	Automatic doors	79,971	75,957
	Sub-total	79,971	75,957
Others	Packaging machines	16,069	14,650
	Others	2,586	2,876
	Sub-total	18,654	17,527
Total		289,808	294,626

Note: The amounts of sales are showed based on external sales.

(2) Contract balances

The following table shows information about accounts receivable, contract assets and contract liabilities from contracts with customers.

(Millions of yen)

	December 31, 2019	December 31, 2018
Accounts receivable from contracts with customers	69,175	74,646
Contract assets	1,000	1,650
Contract liabilities	5,579	5,232

The contract assets primarily relate to the Group’s right to consideration for performance obligations that have been satisfied over time. The contract assets are transferred to receivables when the right becomes unconditional. Accounts receivable from contracts with customers is mainly paid within one year from the date which performance obligations are satisfied, in accordance to payment terms specified in a contract. In addition, the accounts receivable from contracts with customers contain no significant financing components.

Contract liabilities primarily relate to the consideration received from customers before delivery of the product.

The amount of revenue recognized for the year ended December 31, 2019, which was included in contract liabilities at the beginning of the year ended December 31, 2019 is ¥4,915 million. In addition, the amount of revenue recognized from performance obligations satisfied (or partially satisfied) in previous period is not significant.

Impairment loss (increase due to recognition of loss allowance) recognized for receivables from contracts with customers for the year ended December 31, 2019 is ¥130 million, and there are no impairment losses recognized for contract assets.

(3) Transaction price allocated to the remaining performance obligations

The transaction price for each remaining period to satisfy the obligation is as follows. The transaction price does not include estimates of variable consideration amounts. In addition, as the Group uses practical expedients, the following amounts do not include transaction amounts for which the individual expected contract period is within one year.

(Millions of yen)

	2019	2018
Within one year	28,367	27,125
More than one year	15,325	15,524
Total	43,692	42,648

(4) Assets recognized from the costs of obtaining or fulfilling contracts with customers

There are no assets recognized from the costs for obtainment or fulfillment of contracts with customers for the year ended December 31, 2019. If the amortization period of the assets to be recognized is within one year, practical expedients are applied, and the incremental costs of obtaining contracts are recognized as an expense when incurred.

23. Details of expenses by nature

Cost of sales and selling, general and administrative expenses for the years ended December 31, 2019 and 2018 consist of the following:

(Millions of yen)

	2019	2018
Cost of materials and others allocated	144,353	145,111
Employee benefit expenses (Note 1)	58,503	59,910
Research and development costs (Note 2)	9,919	10,214
Depreciation and amortization	12,210	9,367
Travel and transportation costs	3,014	3,279
Others	36,105	40,346
Total	264,103	268,227

Note:1. Employee benefit expenses include the benefits expenses for directors and corporate auditors of the Group.

2. Research and development costs include employee benefit expenses, depreciation and amortization relating to research and development.

24. Other income and expenses

(1) Other income

Other income for the years ended December 31, 2019 and 2018 consists of the following:

(Millions of yen)

	2019	2018
Rental income	428	417
Gain on sale of property, plant and equipment	43	33
Insurance proceeds received	97	274
Compensation received	580	70
Others	648	789
Total	1,795	1,582

(2) Other expenses

Other expenses for the years ended December 31, 2019 and 2018 consist of the following

(Millions of yen)

	2019	2018
Loss on disaster	13	49
Loss on sale and disposal of property, plant and equipment	443	218
Rental costs	197	107
Impairment losses (Note)	1,268	5,223
Others	258	496
Total	2,180	6,093

Note: Details of impairment loss is described in Note “11. Impairment loss”.

25. Finance income and finance costs

(1) Finance income

Finance income for the years ended December 31, 2019 and 2018 consists of the following:

(Millions of yen)

	2019	2018
Interest income Financial assets measured at amortized cost	223	186
Dividend income Financial assets measured at fair value through other comprehensive income	79	73
Gain from changes in fair value of golf club membership Financial assets measured at fair value through profit or loss	5	6
Gain from changes in fair value of derivatives Financial assets measured at fair value through profit or loss	459	101
Total	766	366

(2) Finance costs

Finance costs for the years ended December 31, 2019 and 2018 consist of the following:

(Millions of yen)

	2019	2018
Interest expenses Financial liabilities measured at amortized cost Lease liabilities	 183 86	 124 —
Net foreign exchange loss	699	1,349
Total	971	1,473

26. Share-based payment

(1) Share-based payment-type share option plan

1) Overview of share-based payment-type share option plan

The Company grants share options, which give the holder the right to purchase the Company's shares, to its directors and executive officers (excluding outside directors; hereafter "Directors"). This plan does not have any vesting conditions. With the approval of the 14th Ordinary General Meeting of Shareholders held on March 28, 2017, the Company abolished the share-based payment-type share option plan (however, any unexercised subscription rights to shares already granted to directors as share-based payment-type share options remain). One unit of share option is exchanged for 100 ordinary shares when it is exercised.

The details of share options as of December 31, 2019 are as follows:

Date of grant	Number of board of directors entitled	Number of ordinary shares	Method of settlement	Exercise period
August 19, 2011	20	70,000	Equity- settled	August 20, 2011 - August 19, 2036
August 20, 2012	22	77,700	Equity- settled	August 21, 2012 - August 20, 2037
August 20, 2013	22	64,500	Equity- settled	August 21, 2013 - August 20, 2038
August 20, 2014	21	55,500	Equity- settled	August 21, 2014 - August 20, 2039
August 20, 2015	19	29,300	Equity- settled	August 21, 2015 - August 20, 2040
May 20, 2016	19	53,000	Equity- settled	May 21, 2016 - May 20, 2041
February 27, 2017	19	6,200	Equity- settled	February 27, 2020 - February 26, 2030

2) Number of share options and weighted averaged exercise price

	2019		2018	
	Number of share option	weighted average exercise price	Number of share options	weighted average exercise price
Balance at the beginning of the year	1,675	1	2,233	1
Exercised (Note 1)	(960)	1	(558)	1
Balance at the end of the year (Note 2)	715	1	1,675	1
Exercisable balance at the end of the year	653	1	1,613	1

Note:1. The weighted average share prices of the share options exercised is ¥2,952 and ¥4,027 for the years ended December 31, 2019 and 2018, respectively.

2. The weighted average exercise price of unexercised shares options is ¥1 each as of December 31, 2019 and 2018. The weighted average of the remaining contractual years is 19.9 years and 19.2 years for the years ended December 31, 2019 and 2018.

3) Fair value, measurement and assumptions of share options granted during the year

There were no granted share options for the year ended December 31, 2019 and December 31, 2018.

4) Share-based payment expenses

No share-based payment expenses is for the year ended December 31, 2019 and December 31, 2018.

(2) Board Benefit Trust (Equity settled-type)

1) Overview of Board Benefit Trust

The Company introduced the Board Benefit Trust (BBT).

The plan was introduced to further motivate Directors to improve the medium- to long-term business performance of the Group as a whole and to raise the corporate value, as well as further increase shareholder-centric management awareness. Compared with the existing share-based payment type share options, the plan has the potential to achieve this purpose by additionally clarifying the link between compensation for Directors and the business performance and share value of the Company, and by enabling Directors to share with the shareholders not only benefits of rising share prices but also risks of falling share prices.

Under the plan, the Company's shares are acquired through the trust using the money contributed by the Company, and points ("share grant points") are awarded to Directors every year based on their position and business performance in accordance with the regulations for the provision of shares to officers formulated by the Company. Company shares and the cash equivalent of Company shares will be granted or provided through the trust at prescribed times in accordance with the number of share grant points. One share grant point is exchanged for one ordinary share when the Company shares are granted

2) Number of Share grant points

	2019	2018
	Number of point	Number of point
Balance at the beginning of the year	140,684	80,524
Granted	60,182	81,700
Exercised	(47,981)	(21,540)
Balance at the end of the year	152,885	140,684

In the plan, there is no exercise price, because the Company's shares or cash equivalent to the shares will be obtained or provided through the trust.

3) Fair value of share grant points granted during the year

Fair value is measured based on an observable market price.

Expected dividends are not considered because the term between the grant date and expected exercise date is short. The weighted average exercise price of the points granted is ¥3,313 and ¥3,845 for the years ended December 31, 2019 and 2018, respectively.

4) Cost associated with the Board Benefit Trust

Cost associated with the Board Benefit Trust for the years ended December 31, 2019 and 2018 is ¥186 million and ¥329 million, respectively. The cost is included in "Selling, general and administrative expenses" in the consolidated statement of profit or loss.

27. Earnings per share

(1) Calculation basis of basic earnings per share

Basic earnings per share for the year and the calculation basis are as follows:

		2019	2018
Profit for the year attributable to owners of the parent	(millions of yen)	17,931	21,029
Weighted average number of ordinary shares	(thousand shares)	124,091	123,960
Basic earnings per share	(yen)	144.50	169.65

(2) Calculation basis of diluted earnings per share

Diluted earnings per share for the year and the calculation basis are as follows:

		2019	2018
Diluted profit for the year attributable to owners of the parent	(millions of yen)	17,931	21,029
Weighted average number of ordinary shares	(thousand shares)	124,091	123,960
Effect of share options in the form of subscription rights to shares	(thousand shares)	71	166
Diluted weighted average number of ordinary shares	(thousand shares)	124,163	124,127
Diluted earnings per share	(yen)	144.42	169.42

28. Business combinations

There are no significant business combinations for the year ended December 31, 2019 and December 31, 2018.

29. Subsidiaries

(1) Major subsidiaries of the Group

Major subsidiaries of the Group as of December 31, 2019 and 2018 are as follows;

Company name	Location	Main business	Percentage of voting rights (%)	
			2019	2018
NABCO DOOR Ltd.	Nishi-ku, Osaka, Japan	Accessibility	100.0	100.0
Nabtesco Automotive Corporation	Chiyoda-ku, Tokyo, Japan	Transport	100.0	100.0
Nabtesco Service Co., Ltd.	Shinagawa-ku, Tokyo, Japan	Transport	100.0	100.0
NABCO SYSTEM Co., LTD.	Chiyoda-ku, Tokyo, Japan	Accessibility	85.9	85.9
Toyo Jidoki Co., Ltd.	Minato-ku, Tokyo, Japan	Others	100.0	100.0
Nabtesco (China) Precision Equipment Co., Ltd.	Jiangsu, China	Component	67.0	67.0
Jiangsu Nabtesco KTK Railroad Products Co., Ltd. (Note 2)	Jiangsu, China	Transport	50.0	50.0
Shanghai Nabtesco Hydraulic Co., Ltd.	Shanghai, China	Component	55.0	55.0
Shanghai Nabtesco Hydraulic Equipment Trading Co., Ltd	Shanghai, China	Component	67.0	67.0
Nabtesco Aerospace Inc.	Washington U.S.A.	Transport	100.0	100.0
NABCO Entrances, Inc.	Wisconsin U.S.A.	Accessibility	100.0	100.0
Gilgen Door Systems AG	Schwarzenburg, Switzerland	Accessibility	100.0	100.0
Nabtesco Precision Europe GmbH	Duesseldorf, Germany	Component	100.0	100.0
Nabtesco Power Control (Thailand)Co., Ltd.	Chonburi, Thailand	Component	70.0	70.0

Note:1. In the “Main business” column, the names of reportable segments are stated.

2. Jiangsu Nabtesco KTK Railroad Products Co., Ltd. (“Jiangsu Nabtesco”) is consolidated as the Company determines that it has control over Jiangsu Nabtesco based on the fact that the Company has 50% of the voting rights of Jiangsu Nabtesco and Jiangsu Nabtesco depends on the Company’s technologies.

30. Related parties

(1) Transaction with associates

The balance of receivables and payables and the amounts of transactions with associates are as follows,

1) Balances of receivables and payables with associates

(Millions of yen)

	2019	2018
Outstanding receivables	416	233
Outstanding payables	383	394

Note: The Company has no collaterals or guarantees for the associates. The Company has no loss allowance or receivables due from the associates.

2) Amounts of related party transaction

(Millions of yen)

	2019	2018
Sales	1,831	861
Purchases	4,255	4,212

Note: Related party transactions are priced on an arm's length basis.

(2) Key management personnel compensation

Compensation of the Company's key management personnel for the year comprised the following:

2019

(Millions of yen)

	Total amounts of compensation and others	Total amount of compensation and others by type	
		Basic compensation	Board Benefit Trust
Key management personnel compensation	350	250	100

Note: The executives are the directors of the Company

2018

(Millions of yen)

	Total amounts of compensation and others	Total amount of compensation and others by type	
		Basic compensation	Board Benefit Trust
Key management personnel compensation	446	301	144

Note: The key management personnel are the directors of the Company.

31. Commitments

The Group's commitments as of December 31, 2019 and 2018 are as follows:

(Millions of yen)

	2019	2018
Commitments	6,669	4,817

32. Contingent liabilities

There are no contingent liabilities that need disclosure as of December 31, 2019 and 2018.

33. Subsequent events

There are no subsequent events that need disclosure as of December 31, 2019.

KPMG

Independent Auditor's Report

To the Board of Directors of Nabtesco Corporation.:

We have audited the accompanying consolidated financial statements of Nabtesco Corporation and its consolidated subsidiaries, which comprise the consolidated statement of financial position as at December 31, 2019, and the consolidated statement of profit or loss, statement of comprehensive income, statement of changes in equity and statement of cash flows for the year then ended, and notes to consolidated financial statements.

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 audit. We conducted our audit 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 judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, while the objective of the financial statement audit is not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used 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 Nabtesco Corporation and its consolidated subsidiaries as at December 31, 2018, and their financial performance and cash flows for the year then ended in accordance with International Financial Reporting Standards.

KPMG AZSA LLC

May 22, 2020
Tokyo, Japan