

1 Consolidated financial statements

(1) Consolidated statement of financial position

As of December 31, 2022 and 2021

(Millions of yen)

	Note	2022	2021
Assets			
Current assets			
Cash and cash equivalents	6	124,413	112,771
Trade receivables	7, 21	77,227	74,957
Contract assets	23	2,165	2,065
Other receivables	7	1,301	1,300
Inventories	8	49,210	41,880
Other financial assets	21	1,733	7,821
Other current assets		5,445	3,588
Subtotal		261,494	244,382
Assets held for sale	9	34,030	44,519
Total current assets		295,524	288,900
Non-current assets			
Property, plant and equipment	10	96,082	89,020
Intangible assets	11	6,373	4,251
Right-of-use assets	12, 13	10,129	8,877
Goodwill	11	17,899	16,184
Investment property	14	2,066	2,162
Investments accounted for using the equity method	15	17,729	15,475
Other financial assets	21	10,041	53,860
Deferred tax assets	20	2,281	1,997
Other non-current assets		1,168	992
Total non-current assets		163,768	192,818
Total assets		459,293	481,718

(Millions of yen)

	Note	2022	2021
Liabilities and equity			
Liabilities			
Current liabilities			
Trade payables	16, 21	56,119	51,974
Contract liabilities	23	7,652	5,704
Borrowings	18, 21	19,943	14,690
Other payables	16, 21	19,250	10,776
Income taxes payable		11,734	19,788
Provisions	17	1,678	1,206
Lease liabilities	18, 21	2,640	2,158
Other financial liabilities	21	47,267	77,878
Other current liabilities		6,292	7,139
Total current liabilities		172,577	191,315
Non-current liabilities			
Borrowings	18, 21	366	2,897
Lease liabilities	18, 21	8,403	7,575
Net defined benefit liability	19	8,472	9,079
Deferred tax liabilities	20	4,054	13,922
Other non-current liabilities		2,193	1,936
Total non-current liabilities		23,488	35,408
Total liabilities		196,064	226,723
Equity			
Share capital	22	10,000	10,000
Share premium	22	15,048	14,961
Retained earnings	22	215,670	214,791
Treasury shares	22	(4,646)	(4,784)
Other components of equity	22	12,624	4,942
Equity attributable to owners of the parent		248,696	239,910
Non-controlling interests		14,532	15,084
Total equity		263,228	254,995
Total liabilities and equity		459,293	481,718

(2) Consolidated statement of profit or loss

For the years ended December 31, 2022 and 2021

(Millions of yen)

	Note	2022	2021
Net sales	5, 23	308,691	299,802
Cost of sales	24	(232,007)	(217,759)
Gross profit		76,684	82,043
Other income	25	1,373	1,180
Selling, general and administrative expenses	24	(59,620)	(52,520)
Other expenses	25	(340)	(686)
Operating profit	5	18,097	30,017
Finance income	26	708	126,977
Finance costs	26	(5,828)	(57,126)
Share of profit of investments accounted for using the equity method	15	2,787	2,099
Profit before tax		15,763	101,966
Income tax expense	20	(4,376)	(34,073)
Profit for the year		11,387	67,893
Profit for the year attributable to			
Owners of the parent		9,464	64,818
Non-controlling interests		1,923	3,075
Profit for the year		11,387	67,893
Earnings per share			
Basic earnings per share (yen)	28	78.87	534.67
Diluted earnings per share (yen)	28	78.85	534.53

(3) Consolidated statement of comprehensive income
 For the years ended December 31, 2022 and 2021

(Millions of yen)

	Note	2022	2021
Profit for the year		11,387	67,893
Other comprehensive income for the year			
Items that will not be reclassified to profit or loss			
Remeasurements of net defined benefit liabilities (assets)	22	586	1,148
Net changes in financial assets measured at fair value through other comprehensive income	22	444	274
Total items that will not be reclassified to profit or loss		1,030	1,422
Items that may be reclassified subsequently to profit or loss			
Exchange differences on translation of foreign operations	22	8,088	6,480
Total items that may be reclassified subsequently to profit or loss		8,088	6,480
Total other comprehensive income for the year, net of tax		9,118	7,902
Total comprehensive income for the year		20,505	75,795
Comprehensive income attributable to			
Owners of the parent		17,956	71,444
Non-controlling interests		2,549	4,351
Total comprehensive income for the year		20,505	75,795

(4) Consolidated statement of changes in equity

For the years ended December 31, 2022 and 2021

2022

(Millions of yen)

	Note	Equity attributable to owners of the parent					
		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, 2022		10,000	14,961	214,791	(4,784)	1,874	3,069
Profit for the year		—	—	9,464	—	—	—
Other comprehensive income for the year	22	—	—	—	—	7,488	437
Total comprehensive income for the year		—	—	9,464	—	7,488	437
Acquisition (disposal) of treasury shares and others, net	22	—	—	(10)	137	—	—
Dividends	22	—	—	(9,385)	—	—	—
Transfer from other components of equity to retained earnings		—	—	810	—	—	(243)
Share-based payment transactions	27	—	88	—	—	—	—
Total transactions with owners and others		—	88	(8,586)	137	—	(243)
Balance as of December 31, 2022		10,000	15,048	215,670	(4,646)	9,361	3,263

	Note	Equity attributable to owners of the parent			Non-controlling interests	Total equity
		Other components of equity		Total equity attributable to owners of the parent		
		Remeasurements of net defined benefit liabilities (assets)	Total			
Balance as of January 1, 2022		—	4,942	239,910	15,084	254,995
Profit for the year		—	—	9,464	1,923	11,387
Other comprehensive income for the year	22	566	8,492	8,492	626	9,118
Total comprehensive income for the year		566	8,492	17,956	2,549	20,505
Acquisition (disposal) of treasury shares and others, net	22	—	—	127	—	127
Dividends	22	—	—	(9,385)	(3,101)	(12,486)
Transfer from other components of equity to retained earnings		(566)	(810)	—	—	—
Share-based payment transactions	27	—	—	88	—	88
Total transactions with owners and others		(566)	(810)	(9,170)	(3,101)	(12,271)
Balance as of December 31, 2022		—	12,624	248,696	14,532	263,228

	Note	Equity attributable to owners of the parent					
		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, 2021		10,000	14,998	173,988	(2,471)	(3,348)	4,863
Profit for the year		—	—	64,818	—	—	—
Other comprehensive income for the year	22	—	—	—	—	5,222	268
Total comprehensive income for the year		—	—	64,818	—	5,222	268
Acquisition (disposal) of treasury shares and others, net	22	—	(4)	(19)	(20,707)	—	—
Cancellation of treasury shares	22	—	—	(18,394)	18,394	—	—
Change in scope of consolidation		—	—	—	—	—	—
Dividends	22	—	—	(8,800)	—	—	—
Transfer from other components of equity to retained earnings		—	—	3,199	—	—	(2,062)
Share-based payment transactions	27	—	(34)	—	—	—	—
Total transactions with owners and others		—	(38)	(24,015)	(2,313)	—	(2,062)
Balance as of December 31, 2021		10,000	14,961	214,791	(4,784)	1,874	3,069

	Note	Equity attributable to owners of the parent			Non-controlling interests	Total equity
		Other components of equity		Total equity attributable to owners of the parent		
		Remeasurements of net defined benefit liabilities (assets)	Total			
Balance as of January 1, 2021		—	1,515	198,031	13,610	211,641
Profit for the year		—	—	64,818	3,075	67,893
Other comprehensive income for the year	22	1,137	6,626	6,626	1,276	7,902
Total comprehensive income for the year		1,137	6,626	71,444	4,351	75,795
Acquisition (disposal) of treasury shares and others, net	22	—	—	(20,730)	—	(20,730)
Cancellation of treasury shares	22	—	—	—	—	—
Change in scope of consolidation		—	—	—	51	51
Dividends	22	—	—	(8,800)	(2,928)	(11,728)
Transfer from other components of equity to retained earnings		(1,137)	(3,199)	—	—	—
Share-based payment transactions	27	—	—	(34)	—	(34)
Total transactions with owners and others		(1,137)	(3,199)	(29,564)	(2,877)	(32,441)
Balance as of December 31, 2021		—	4,942	239,910	15,084	254,995

(5) Consolidated statement of cash flows

For the years ended December 31, 2022 and 2021

(Millions of yen)

	Note	2022	2021
Cash flows from operating activities			
Profit for the year		11,387	67,893
Depreciation and amortization		14,483	13,266
Increase (decrease) in net defined benefit assets and liabilities		208	297
Interest and dividends income		(603)	(528)
Interest expenses		199	168
Gain from remeasurement relating to discontinuing the use of the equity method		—	(125,107)
Gain or loss on valuation of investment securities		5,535	56,958
Share of (profit) loss of investments accounted for using the equity method		(2,787)	(2,099)
Loss (gain) on sales and disposal of property, plant and equipment		87	382
Gain (loss) on sales of investment property		(65)	—
Income tax expense		4,376	34,073
Decrease (increase) in trade receivables, contract assets and contract liabilities		2,072	1,545
Decrease (increase) in inventories		(5,135)	(3,846)
Increase (decrease) in trade payables		2,302	5,040
Others		(2,198)	(355)
Sub-total		29,861	47,686
Interest and dividends received		1,267	1,023
Interest paid		(194)	(165)
Income tax paid		(23,216)	(12,204)
Net cash provided by operating activities		7,717	36,340

(Millions of yen)

	Note	2022	2021
Cash flows from investing activities			
Decrease (increase) in time deposits		311	1,484
Purchase of property, plant and equipment		(8,809)	(7,738)
Proceeds from sales of property, plant and equipment		42	89
Purchase of intangible assets		(2,559)	(1,561)
Proceeds from sales of investment property		103	17
Payments for acquisition of subsidiaries resulting in a change in the scope of consolidation		—	(746)
Proceeds from sale of investment securities	21	47,690	79,014
Payments for settlement of sales price on investment securities	21	(28,471)	—
Payments of leasehold and guarantee deposits	21	(93)	(11,528)
Proceeds from refund of leasehold and guarantee deposits	21	6,573	5,031
Proceeds from sales of investments accounted for using the equity method		—	3,156
Others		(1,555)	(71)
Net cash used in investing activities		13,231	67,147
Cash flows from financing activities			
Net increase (decrease) in short-term borrowings	18	2,077	(12,601)
Proceeds from long-term borrowings	18	—	30
Repayments of long-term borrowings	18	(232)	(222)
Redemption of bonds	18	—	(10,000)
Payments of lease liabilities	18	(2,854)	(2,522)
Net decrease (increase) in treasury shares		33	(20,969)
Dividends paid	22	(9,380)	(8,800)
Capital contribution from non-controlling interests		—	51
Dividends paid to non-controlling interests		(3,101)	(2,928)
Net cash used in financing activities		(13,456)	(57,960)
Net increase in cash and cash equivalents		7,492	45,527
Cash and cash equivalents at the beginning of the year	6	112,771	64,665
Effect of exchange rate changes on cash and cash equivalents		4,150	2,579
Cash and cash equivalents at the end of the year	6	124,413	112,771

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, 2022 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 23, 2023.

(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 at fair value 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 recognized 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:	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) Leases

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 leases, if that rate can be readily determined. If the interest rate implicit in the leases 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 8 - 40 years.

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

(11) Assets held for sale

A non-current asset or a disposal group that is highly probable to be sold and whose carrying amount will be recovered through a sale rather than through continuing use is classified as assets held for sale if the asset or disposal group is available for immediate sale in its present condition, management of the Group is committed to a sale and the sale is expected to be

completed within one year.

(12) 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".

(13) 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.

(14) 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 future 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.

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.

To provide against future losses on compensation, the expected losses on the compensations at the end of the fiscal year the respective amounts 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.

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

(16) 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 consideration 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).

(17) Finance income and finance costs

Finance income mainly consists of interest income, dividends income, foreign exchange gains, gains on derivatives and gain from remeasurement relating to discontinuing the use of the equity method. 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, losses on derivatives and loss on valuation of investment securities.

(18) 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 offset current tax assets against current tax liabilities and when income taxes are levied by the same taxation authority on the same taxable entity.

(19) Earnings per share

Basic earnings per share is 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 is calculated by adjusting the effects of all dilutive potential ordinary shares. The Company's potential ordinary shares include share options.

(20) New standards and interpretations not yet applied

The Group has not applied the new or amended standards and interpretations that are not effective as of December 31, 2022 in preparing these consolidated financial statements. New or revised major standards and interpretations that relate to the Group are set out in the table below.

The impacts adopting IAS 12 on the Group's consolidated financial statements will not be material.

IFRS	Title	Reporting period on or after which the applications are required	Reporting periods of the application by the Group	Summaries of new IFRSs and amendments
IAS 12	Income taxes	January 1, 2023	December 31, 2023	Accounting treatment of deferred tax related to assets and liabilities arising from a single transaction

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".

The impairment testing of goodwill is described in Note "11. Goodwill and intangible assets". Impairment of other non-financial assets including goodwill is described in Note "12. Impairment of non-financial assets".

1) Non-financial assets of aircraft equipment business (Property, plant and equipment, Intangible assets, Right-of-use assets)

The Company identified an impairment indicator for assets related to the aircraft equipment business within the Transport Solutions Business segment and performed an impairment test since the business has been affected by delay in a full-fledged recovery of demand for private-sector aircrafts and fallen short of the plan for defense equipment due to delays in purchasing imported goods in the current fiscal year. As a result of the test, no impairment loss was recognized since the value in use exceeded the carrying amount of ¥10,443 million (¥10,368 million in property, plant and equipment, ¥68 million in intangible assets, and ¥8 million in right-of-use assets).

The recoverable amount of non-financial assets of the aircraft equipment business is measured at the value in use. The value in use is determined by discounting estimated future cash flows, calculated based on respective business plans, using weighted average cost of capital for the discount rate. The estimation of the value in use includes significant assumptions such as projected sales, cost reduction measures, the projected growth rate after the business plan period, and weighted average cost of capital used as the discount rate. It is assumed that the economy will gradually recover in and after 2023 from the impact of the spread of COVID-19.

These assumptions are based on the best estimates and judgments made by management. However, since there is a high degree of uncertainty about projections of demand in major markets, there may be a material impact on the amount of non-financial assets to be recognized in the consolidated financial statements of the next fiscal year if business profitability declines and it is determined that sufficient cash flows cannot be generated.

2) Non-financial assets of the OVALO Group (Property, plant and equipment, Intangible assets, Right-of-use assets)

The Company identified an impairment indicator for assets related to OVALO GmbH and its subsidiary within the Transport Solutions Business segment and tested for impairment since the business was affected by a reduction in production by its main customers influenced by semiconductor shortage in the current fiscal year. As a result of the test, the Company did not recognize impairment loss since the value in use exceeded the carrying amount of ¥2,259 million (¥709 million in property, plant and equipment, ¥463 million in intangible assets, and ¥1,087 million in right-of-use assets).

The recoverable amount of non-financial assets of OVALO GmbH's business is measured at the value in use. The value in use is determined by discounting future cash flows, calculated based on the business plan, using weighted average cost of capital for the discount rate. The estimation of the value in use includes significant assumptions, such as projected sales to

main customers incorporated in the business plan. It is assumed that the economy will gradually recover in and after 2023 from the impact of the spread of COVID-19.

These assumptions are based on the best estimates and judgments made by management. However, since there is a high degree of uncertainty about sales projections, there may be a material impact on the amount of non-financial assets to be recognized in the consolidated financial statements for the next fiscal year if business profitability declines and it is determined that sufficient cash flows cannot be generated.

3) Goodwill of the Gilgen Group

The Company performed an annual impairment test of goodwill (carrying amount of ¥14,759 million) related to Gilgen Door Systems AG and its eight subsidiaries (hereinafter "Gilgen Group"), in accordance with Note "3. Significant accounting policies". As a result of the test, no impairment loss was recognized since the value in use exceeded the carrying amount.

The recoverable amount of non-financial assets of the Gilgen Group's business is measured at the value in use. The value in use is determined by discounting estimated future cash flows, calculated based on respective business plans, using weighted average cost of capital as the discount rate. The estimation of the value in use includes significant assumptions such as projected sales according to its business plans and weighted average cost of capital used as the discount rate. It is assumed that the economy will gradually recover in and after 2023 from the impact of the spread of COVID-19.

These assumptions are based on the best estimates and judgments made by management. However, since there is a high degree of uncertainty about projections of demand in major markets, there may be a material impact on the amount of non-financial assets to be recognized in the consolidated financial statements of the next fiscal year if business profitability declines and it is determined that sufficient cash flows cannot be generated.

(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 settle 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 "17. Provisions" and the details of the contingent liabilities are provided in Note "33. 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 details of the assumptions are used are provided in Note "19. 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 that 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 "20. 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 "21. 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.

(8) Scope of subsidiaries

The Group considers a specific company whose voting rights are 50% or less owned by the Company as a subsidiary, because the Company controls the company.

The specific company is described in Note "30. Subsidiaries".

5. Business segments

(1) Overview of reportable segments

The reportable segments are components of the Group 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.

2022

(Millions of yen)

	Reportable segment				Others	Total	Adjustments	Consolidated totals	
	Component	Transport	Accessibility	Total					
Net sales									
Sales to external customers	140,629	70,950	78,561	290,139	18,551	308,691	—	308,691	
Inter-segment sales	2,660	1,455	3	4,118	314	4,432	(4,432)	—	
Total net sales	143,289	72,405	78,564	294,257	18,865	313,123	(4,432)	308,691	
Segment income (Operating profit)	15,919	6,714	2,830	25,463	1,484	26,947	(8,850)	18,097	
Finance income	—								708
Finance costs	—								(5,828)
Share of profit of investments accounted for using the equity method	—								2,787
Profit before tax	—								15,763
Other items									
Depreciation and amortization	5,970	3,742	2,747	12,459	521	12,980	1,503	14,483	
Segment assets	123,729	77,673	86,223	287,625	14,749	302,374	156,919	459,293	
Increase in tangible and intangible assets	13,850	1,958	1,305	17,113	248	17,361	1,464	18,825	

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 ¥156,919 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.

	Reportable segment				Others	Total	Adjustments	Consolidated totals	
	Component	Transport	Accessibility	Total					
Net sales									
Sales to external customers	138,130	67,744	75,108	280,982	18,820	299,802	—	299,802	
Inter-segment sales	2,539	1,355	4	3,898	391	4,289	(4,289)	—	
Total net sales	140,669	69,099	75,111	284,880	19,211	304,091	(4,289)	299,802	
Segment income (Operating profit)	22,903	5,617	7,642	36,163	2,736	38,899	(8,882)	30,017	
Finance income	—								126,977
Finance costs	—								(57,126)
Share of profit of investments accounted for using the equity method	—								2,099
Profit before tax	—								101,966
Other items									
Depreciation and amortization	5,166	3,943	2,229	11,338	451	11,789	1,477	13,266	
Segment assets	112,697	78,060	75,661	266,418	12,802	279,219	202,499	481,718	
Increase in tangible and intangible assets	5,263	1,952	1,009	8,224	166	8,390	1,181	9,571	

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 ¥202,499 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 "23. Revenues from contracts with customers".

(4) Geographic information

Net sales

(Millions of yen)

	2022	2021
Japan	162,716	162,588
China	53,072	59,510
Other Asia	21,530	16,546
North America	21,464	16,623
Europe	46,552	42,259
Other regions	3,357	2,277
Total	308,691	299,802

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

Non-current assets

(Millions of yen)

	2022	2021
Japan	111,957	102,466
China	9,299	8,697
Other Asia	1,808	1,949
North America	1,765	1,441
Europe	8,538	6,637
Total	133,367	121,190

Note: Non-current assets are classified based on 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, 2022 and 2021 consist of the following:

(Millions of yen)

	2022	2021
Cash and deposits	91,416	72,773
Short-term investments due within three months from the date of acquisition	32,998	39,998
Total	124,413	112,771

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, 2022 and 2021 consist of the following:

(Millions of yen)

	2022	2021
Accounts receivable	69,844	65,312
Notes receivable	8,085	10,135
Less: Loss allowance	(702)	(490)
Total	77,227	74,957

(2) Other receivables

Other receivables as of December 31, 2022 and 2021 consist of the following:

(Millions of yen)

	2022	2021
Accounts receivable-others	1,301	1,300
Total	1,301	1,300

8. Inventories

Inventories as of December 31, 2022 and 2021 consist of the following:

(Millions of yen)

	2022	2021
Finished goods and merchandise	11,614	9,809
Work in progress	18,768	15,129
Raw materials and supplies	18,828	16,942
Total	49,210	41,880

Note: The amounts of write-down of inventories recorded in cost of sales are ¥253 million for the year ended December 31, 2022. There is no significant of write-down of inventories recorded in cost for the year ended 2021. There is no significant reversal of write-down for the years ended December 31, 2022 and 2021.

9. Assets held for sale

Assets held for sale as of December 31, 2022 and 2021 consist of the following:

(Millions of yen)

	2022	2021
Other financial assets	34,030	44,519

Note: With respect to the sale of Harmonic Drive Systems Inc (hereinafter "HDS") shares (9,160,200 shares) determined by the management on November 15, 2022, the transfer of risks and rewards of ownership of the shares from the Company to the purchaser is expected to be completed within a year from December 31, 2022. Therefore, the Company classifies the shares as assets held for sale. With respect to the partial sale of HDS shares (9,160,200 shares) determined by the management on February 10, 2021, the transfer of risks and rewards of ownership of the shares from the Company to the purchaser is expected to be completed within a year from December 31, 2021. Therefore, the Company classifies the shares as assets held for sale.

With regard to the partial sale of HDS shares on February 10, 2021 for which the settlement of the sales price had not been completed, the sale of the shares to the market has been completed by Nomura Securities Co., Ltd., the purchaser. Upon the completion of the sale of shares, the risks and rewards of HDS shares were transferred from the Company to the purchaser, and other financial assets decreased as a result of the settlement of the sales price based on the average daily Volume Weighted Average Price (hereinafter "VWAP") during the period of sales.

(Summary of partial sales of shares)

- (1) Shares subject to sale : Common shares of Harmonic Drive Systems Inc
- (2) Number of shares sold : 9,160,200 shares
- (3) Period of sale : February 10, 2021, to July 11, 2022
- (4) Total sales price : ¥49,391 million

Due to completion of the sale, the Company recorded ¥4,872 million, the difference between the total sales price based on the average daily VWAP during the period of sale and the fair value as of December 31, 2021, in the year ended December 31, 2022. The difference was offset by a valuation loss of ¥10,488 million, which was included in financial costs, resulting from the remeasurement of HDS shares held by the Company based on the closing price (fair value) as of December 31, 2022. The difference of ¥28,471 million between the total sales price of ¥49,391 million and the deposits of ¥77,862 million received at the start of the share sales ("Other financial liabilities"), is included in "Payments for settlement of sales price on investment securities" and the deposit refund of ¥6,499 million ("Other financial assets") is included in "Proceeds from refund of leasehold and guarantee deposits" in the consolidated statement of cash flows for the year ended December 31, 2022.

(The effect to the business performance)

(Millions of yen)

	2022	2021
Finance income (Note 2)	4,872	—
Finance cost (Note 1)	—	(27,206)

Notes: 1. Loss on valuation of HDS Shares remeasured based on share price (fair value) as of December 31, 2021.

2. The amount of difference between received amount of sales based on the averaged VWAP in each day during the term of sales and the fair value as of December 31, 2021.

10. Property, plant and equipment

(1) Reconciliation of carrying amounts

(Millions of yen)

	Buildings and structures	Machinery, equipment and vehicles	Tools, furniture and fixtures	Land	Construction in progress	Total
Balance as of January 1, 2021	30,905	26,219	5,009	17,811	9,578	89,522
Additions	—	—	—	75	7,919	7,995
Depreciation (Note)	(2,303)	(4,828)	(2,216)	—	—	(9,347)
Reclassification	947	4,550	2,140	(22)	(7,656)	(43)
Disposals	(92)	(185)	(51)	—	—	(328)
Exchange differences on translation of foreign operations	439	619	107	37	19	1,221
Balance as of December 31, 2021	29,896	26,375	4,989	17,901	9,859	89,020
Additions	—	—	—	10	16,256	16,266
Acquisitions through business combinations	—	—	56	—	—	56
Depreciation (Note)	(2,574)	(5,216)	(2,326)	—	—	(10,116)
Reclassification	2,244	7,607	2,024	—	(11,875)	—
Disposals	(12)	(42)	(4)	—	—	(57)
Exchange differences on translation of foreign operations	263	434	60	106	51	913
Balance as of December 31, 2022	29,817	29,158	4,798	18,018	14,291	96,082

Notes: 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) 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, 2021	65,289	87,994	30,417	17,811	9,578	211,089
Balance as of December 31, 2021	66,316	91,648	30,931	17,901	9,859	216,655
Balance as of December 31, 2022	69,329	99,480	31,762	18,018	14,291	232,880

(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, 2021	34,384	61,775	25,408	—	—	121,567
Balance as of December 31, 2021	36,420	65,273	25,942	—	—	127,636
Balance as of December 31, 2022	39,512	70,322	26,963	—	—	136,798

11. 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, 2021	14,658	3,126	293	333	153	18,562
Additions	—	1,542	—	—	33	1,575
Acquisitions through business combinations	658	—	—	—	—	658
Amortization (Note 2)	—	(1,253)	(63)	(30)	56	(1,290)
Exchange differences on translation of foreign operations	869	36	22	12	(10)	929
Balance as of December 31, 2021	16,184	3,451	253	315	232	20,434
Additions	—	2,321	—	—	238	2,559
Increase and decrease through business combinations	(154)	173	531	92	91	733
Amortization (Note 2)	—	(1,277)	(103)	(55)	(21)	(1,456)
Exchange differences on translation of foreign operations	1,869	21	8	37	66	2,001
Balance as of December 31, 2022	17,899	4,689	689	389	605	24,272

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.

(2) Cost

(Millions of yen)

	Goodwill	Software	Customer related assets	Technology assets	Others	Total
Balance as of January 1, 2021	25,246	7,369	2,751	434	1,438	37,237
Balance as of December 31, 2021	27,259	7,883	2,827	446	1,709	40,125
Balance as of December 31, 2022	30,168	9,483	3,636	576	2,363	46,226

(3) Accumulated amortization and accumulated impairment losses

(Millions of yen)

	Goodwill	Software	Customer related assets	Technology assets	Others	Total
Balance as of January 1, 2021	10,588	4,243	2,457	102	1,285	18,675
Balance as of December 31, 2021	11,075	4,432	2,574	132	1,477	19,690
Balance as of December 31, 2022	12,269	4,794	2,947	187	1,758	21,954

(4) Impairment test

Carrying amounts of goodwill as of December 31, 2022 and 2021 allocated to each cash-generating unit are as follows:

(Millions of yen)

Reportable segment	Cash-generating unit	2022	2021
Component	Nabtesco Power Control Company	2,582	2,582
Accessibility	Gilgen Group	14,759	12,945
Others	Engilico Group	559	—
Total		17,899	15,526

Note: Goodwill derived from the acquisition of Engilico group of ¥658 million is not included in the above table as of December 31, 2021. The amount of goodwill is provisional because the identifiable assets acquired and liabilities assumed at the date of the business combination are still under review and the allocation of consideration is yet to be completed as of December 31, 2021.

As a result of the allocation of consideration above is completed, goodwill decreases by ¥154 million, intangible assets increases by ¥250 million and deferred tax liabilities increases ¥63 million mainly.

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 determined based on growth rate estimated within the range of the inflation rate of the country to which the cash-generating unit belongs (1.0% to 1.7%).

The Group did not recognize impairment loss as of December 31, 2022 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 (9.5% to 15.3%). 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 0.3%, there is a possibility that an impairment loss may be incurred.

The Group did not recognize impairment loss as of December 31, 2021 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 (8.6% to 10.5%). 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 1.6%, there is a possibility that an impairment loss may be incurred.

12. Impairment of non-financial assets

For the year ended December 31, 2022

There are no impairment of non-financial assets that need disclosure as of December 31, 2022.

For the year ended December 31, 2021

There are no impairment of non-financial assets that need disclosure as of December 31, 2021.

13. 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	2022	2021
Buildings and structures	8,242	7,171
Machinery, equipment and vehicles	1,177	1,005
Tools, furniture and fixtures	56	54
Land	655	648
Total	10,129	8,877

(Millions of yen)		
	2022	2021
Depreciations of right-of-use assets		
Buildings and structures	2,314	2,169
Machinery, equipment and vehicles	469	335
Tools, furniture and fixtures	40	41
Land	30	27
Total of depreciations	2,853	2,573
Interest expense on lease liabilities	95	70
Expense relating to short-term leases	706	650
Expense relating to leases of low-value assets	1,058	1,042
Total cash outflow for leases	4,618	4,214
Additions to right-of-use assets	4,448	4,069

(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 "21. Financial instruments (2) Liquidity risk management".

14. Investment property

(1) Overview of investments property

The Group has a part of an office building and land for lease in Ehime.

(2) Reconciliation of carrying amount

(Millions of yen)

Balance as of January 1, 2021	2,192
Acquisitions	1
Depreciation	(56)
Sale	(17)
Reclassification (Note)	43
Balance as of December 31, 2021	2,162
Acquisitions	—
Depreciation	(58)
Sale	(38)
Balance as of December 31, 2022	2,066

Note: Reclassification from Property, plant and equipment.

(3) Cost

(Millions of yen)

Balance as of January 1, 2021	5,515
Balance as of December 31, 2021	4,816
Balance as of December 31, 2022	4,543

(4) Accumulated depreciation and accumulated impairment losses

(Millions of yen)

Balance as of January 1, 2021	3,323
Balance as of December 31, 2021	2,653
Balance as of December 31, 2022	2,476

(5) Fair value

(Millions of yen)

	2022	2021
Fair value	1,033	1,169

The fair value of investment property as of December 31, 2022 and 2021 is mainly based on appraisal values calculated by independent real estate appraisers, which are typically determined by the appraisal values derived from the 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 "21. Financial instruments".

15. 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, 2022 and 2021 are as follows.

For the year ended December 31, 2022

Company name	Location	Main business	Percentage of voting rights (%)
TMT Machinery, Inc. (Note)	Chuo-ku, Osaka city Osaka-hu	Manufacturing, sales and others of synthetic fiber machinery and systems	33.0

For the year ended December 31, 2021

Company name	Location	Main business	Percentage of voting rights (%)
TMT Machinery, Inc. (Note)	Chuo-ku, Osaka city Osaka-hu	Manufacturing, sales and others of synthetic fiber machinery and systems	33.0

Note: The Company's Board of Directors resolved to dissolve the cooperative relationship with Harmonic Drive Systems Inc. (hereinafter, "HDS") and not to exercise the first share options issued by HDS requesting HDS to purchase all of them in accordance with the subscription contract on January 29, 2021. The company exercised the options on the same date. As a result of the above, HDS was excluded from the Company's equity-method affiliates as of January 29, 2021 since the Company lost significant influence over HDS due to the decrease in the Company's share of voting rights (including potential voting rights) in HDS.

(2) Investments in significant associates for the Group

There were no investments in significant associates for the Group as of December 31, 2022 and 2021.

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

(Millions of yen)

	2022	2021
The Group's share of profit for the year	2,787	2,099
The Group's share of comprehensive income	2,787	2,099
Carrying amount of investments in associates	17,729	15,475

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

The reporting date is March 31 for three 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.

16. Trade and other payables

(1) Trade payables

Trade payables as of December 31, 2022 and 2021 consist of the following:

(Millions of yen)

	2022	2021
Accounts payable	18,587	18,121
Notes payable	1,148	1,089
Electronically recorded obligations	36,384	32,765
Total	56,119	51,974

(2) Other payables

Other payables as of December 31, 2022 and 2021 consist of the following:

(Millions of yen)

	2022	2021
Accounts payable-others	11,302	5,275
Accrued expenses	3,315	2,655
Electronically recorded obligations-equipment	3,042	1,317
Others	1,590	1,529
Total	19,250	10,776

17. Provisions

(1) Details of provisions

Provisions as of December 31, 2022 and 2021 consist of the following:

(Millions of yen)

	2022	2021
Current liabilities	1,678	1,206

(2) Changes in provisions

(Millions of yen)

	Provision for product warranties	Provision for losses on order received	Provision for compensation	Total
Balance as of January 1, 2022	928	278	—	1,206
Additional provisions made during the year	781	411	71	1,264
Provisions used during the year	(619)	(82)	—	(701)
Provisions reversed during the year	(84)	(44)	—	(127)
Exchange differences on translation of foreign operations	37	—	—	37
Balance as of December 31, 2022	1,043	564	71	1,678

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

1) Provision for product warranties

To provide against the future 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.

3) Provision for compensation

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

18. Bonds, borrowings and lease liabilities

(1) Details of borrowings

Borrowings as of December 31, 2022 and 2021 consist of the following:

	(Millions of yen)	
	2022	2021
Current liabilities		
Short-term borrowings	17,058	14,459
Current portion of long-term borrowings	2,885	232
Total	19,943	14,690
Non-current liabilities		
Long-term borrowings	366	2,897
Total	366	2,897

(2) Bonds

There is no issuance of bonds as of December 31, 2022.

(3) Borrowings

Weighted average interest rates on "Short-term borrowings", "Current portion of long-term borrowings" and "Long-term borrowings" were 0.76%, 4.25% and 0.60%, respectively, for the year ended December 31, 2022. The repayment terms of "Long-term borrowings" are from 2025 to 2026.

(4) Changes in liabilities arising from financial activities

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

(Millions of yen)

	Short-term borrowings	Long-term borrowings (Note 1)	Bonds	Lease liabilities (Note 2)	Derivatives (Note 3)	Total
Balance as of January 1, 2021	26,789	3,087	9,991	8,501	69	48,436
Changes from financing cash flows	(12,601)	(192)	(10,000)	(2,522)	—	(25,314)
Additions to right-of-use assets	—	—	—	3,995	—	3,995
Decrease by cancelation	—	—	—	(455)	—	(455)
Exchange differences on translation of foreign operations	271	234	—	214	—	719
Change in fair value	—	—	—	—	(234)	(234)
Others	—	—	9	—	—	9
Balance as of December 31, 2021	14,459	3,129	—	9,733	(165)	27,156
Changes from financing cash flows	2,077	(232)	—	(2,854)	—	(1,008)
Additions to right-of-use assets	—	—	—	4,448	—	4,448
Decrease by cancelation	—	—	—	(804)	—	(804)
Exchange differences on translation of foreign operations	522	354	—	520	—	1,396
Change in fair value	—	—	—	—	(372)	(372)
Balance as of December 31, 2022	17,058	3,251	—	11,043	(537)	30,816

Note1: Long-term borrowings include current portion of long-term borrowings.

2 Lease liabilities include current portion of lease liabilities.

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

19. 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 as required by laws and ordinances, and 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)

	2022	2021
Present value of defined benefit obligations	33,911	36,627
Fair value of plan assets	(29,458)	(29,355)
Effect of the asset ceiling	3,892	1,699
Net defined benefit liabilities	8,472	9,079
Net defined benefit assets	(126)	(108)
Net amount of liabilities and assets in the consolidated statement of financial position	8,346	8,970

3) Changes in the present value of defined benefit obligations

(Millions of yen)

	2022	2021
Balance at the beginning of the year	36,627	34,262
Current service cost	1,927	1,839
Interest cost	134	95
Remeasurement		
Actuarial gains and losses arising from changes in demographic assumptions	(15)	(464)
Actuarial gains and losses arising from changes in financial assumptions	(6,748)	152
Actuarial gains and losses arising from experience adjustments	(500)	(620)
Benefits paid	(807)	(210)
Exchange differences on translation of foreign operations	3,294	1,574
Balance at the end of the year	33,911	36,627

The weighted average duration of defined benefit obligations was 11.7 years as of the year ended December 31, 2022 and 13.7 years as of the year ended December 31, 2021.

4) Changes in the fair value of plan assets

(Millions of yen)

	2022	2021
Balance at the beginning of the year	29,355	24,156
Interest income	92	50
Remeasurement		
Income from plan assets	(4,312)	2,269
Contributions by employer	1,227	1,076
Contributions by employees	612	496
Benefits paid	(919)	(282)
Exchange differences on translation of foreign operations	3,403	1,589
Balance at the end of the year	29,458	29,355

The Group plans to contribute ¥1,969 million to the defined benefit plans for the year ending December 31, 2022.

5) Details of plan assets

(Millions of yen)

	2022			2021		
	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	1,916	—	1,916	1,585	—	1,585
Equity instruments						
Domestic shares	—	363	363	—	574	574
Foreign shares	9,879	272	10,151	10,139	301	10,440
Debt instruments						
Domestic bonds	—	1,769	1,769	—	1,615	1,615
Foreign bonds	10,196	620	10,817	11,525	261	11,787
Others	—	4,442	4,442	—	3,355	3,355
Total	21,992	7,466	29,458	23,250	6,106	29,355

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)

	2022	2021
Balance at the beginning of the year	1,699	—
Interest revenue	4	—
Remeasurement		
Effect of limiting a net defined benefit asset to the asset ceiling	1,946	1,699
Exchange differences on translation of foreign operations	243	—
Balance at the end of the year	3,892	1,699

7) Amounts in the consolidated statement of profit or loss

(Millions of yen)

	2022	2021
Defined benefit cost	1,354	1,388

8) Significant actuarial assumptions

Significant actuarial assumptions as of December 31, 2022 and 2021 are as follows:

	2022	2021
Discount rate	1.9%	0.3%

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, 2022 and 2021. The sensitivity analysis is 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)

	2022	2021
0.25% increase in discount rate	(916)	(1,141)
0.25% decrease in discount rate	968	1,217

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)

	2022	2021
Amounts recognized as an expense for defined contribution plans for the year	905	1,014

20. Income taxes

(1) Income taxes

1) Income taxes recognized in profit or loss

(Millions of yen)

	2022	2021
Current tax expense for the year		
Current fiscal year	14,963	25,274
Recognition of previously unrecognized tax losses	51	(110)
Sub-total	15,014	25,164
Deferred tax expense for the year		
Origination and reversal of temporary differences	(10,638)	8,909
Sub-total	(10,638)	8,909
Total	4,376	34,073

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.

	2022	2021
Effective statutory tax rate for the year	30.6	30.6
(Adjustments)		
Effect of tax rates in foreign jurisdictions	(2.1)	(1.0)
Changes in unrecognized deferred tax assets	2.3	0.3
Non-deductible expenses for tax purposes such as meals and entertainment	3.3	0.4
Share of profit of investments accounted for using the equity method	(5.4)	(0.6)
Tax credit	(4.4)	(0.8)
Undistributed earnings on foreign operations and associates	2.8	0.3
Excess on tax base in Investments accounted for equity method	—	3.8
Others	0.7	0.4
Average effective tax rate for the year	27.8	33.4

(2) Deferred taxes

1) Details of changes in deferred tax assets and liabilities

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

2022

(Millions of yen)

	Balance as of January 1, 2022	Amount recognized in profit or loss	Amount recognized in other comprehensive income	Balance as of December 31, 2022
Deferred tax assets				
Loss allowance	90	(46)	—	44
Loss on valuation of inventories	121	31	—	152
Accrued expenses	1,317	(343)	—	974
Provision for product warranties	183	1	—	184
Provision for losses on order received	—	195	—	195
Other current liabilities	419	(52)	—	367
Net defined benefit liabilities	2,814	164	(200)	2,779
Loss on valuation of investments in associates	166	(166)	—	—
Loss on valuation of golf club membership rights	3	2	—	5
Impairment loss	143	(95)	—	48
Tax loss carried forward	310	366	—	675
Others (assets)	1,616	70	—	1,685
Total	7,181	126	(200)	7,108
Deferred tax liabilities				
Deferred taxation on government grants for acquisition of property, plant and equipment	1,112	62	—	1,174
Other financial assets - valuation differences due to net changes in fair value (Note2)	12,063	(10,488)	89	1,664
Unrealized gains on land	971	—	—	971
Adjustments for taxable income related to foreign operations (inventories)	207	96	—	303
Undistributed earnings on foreign operations and associates	3,906	441	—	4,347
Identifiable intangible assets	192	48	—	240
Others (liabilities)	655	(473)	—	182
Total	19,106	(10,314)	89	8,881
Net deferred tax assets (liabilities)	(11,925)	10,441	(289)	(1,773)

Note:1 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" are a result of changes in exchange rates and other factors.

2 Other financial assets - valuation differences due to net changes in fair value includes the net change of HDS Shares remeasured based on share price (fair value) as of December 31, 2022.

(Millions of yen)

	Balance as of January 1, 2021	Amount recognized in profit or loss	Amount recognized in other comprehensive income	Balance as of December 31, 2021
Deferred tax assets				
Loss allowance	47	42	—	90
Loss on valuation of inventories	119	1	—	121
Accrued expenses	710	606	—	1,317
Provision for product warranties	165	18	—	183
Other current liabilities	440	(21)	—	419
Net defined benefit liabilities	2,964	132	(282)	2,814
Loss on valuation of investments in associates	166	(0)	—	166
Loss on valuation of golf club membership rights	23	(20)	—	3
Impairment loss	139	4	—	143
Tax loss carried forward	331	(21)	—	310
Others (assets)	880	736	—	1,616
Total	5,985	1,478	(282)	7,181

Deferred tax liabilities				
Deferred taxation on government grants for acquisition of property, plant and equipment	1,245	(133)	—	1,112
Other financial assets - effect of remeasurement relating to discontinuing the use of the equity method and valuation differences due to net changes in fair value- (Note2)	1,415	10,582	66	12,063
Unrealized gains on land	1,152	(181)	—	971
Adjustments for taxable income related to foreign operations (inventories)	186	20	—	207
Undistributed earnings on foreign operations and associates	4,206	(300)	—	3,906
Identifiable intangible assets	224	(32)	—	192
Others (liabilities)	489	165	—	655
Total	8,918	10,122	66	19,106
Net deferred tax assets (liabilities)	(2,933)	(8,644)	(348)	(11,925)

Note:1 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" are a result of changes in exchange rates and other factors.

2 Other financial assets - effect of remeasurement relating to discontinuing the use of the equity method and valuation differences due to changes in fair value- includes the net change of HDS Shares, which were excluded from the Company's equity-method affiliates at January 29, 2021 and measured at fair value.

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

Deductible temporary differences and unused tax losses as of December 31, 2022 and 2021 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)

	2022	2021
Deductible temporary differences	2,479	2,287
Tax loss carry forward	14,054	11,923
Total	16,533	14,210

Tax losses as of December 31, 2022 and 2021 for which no deferred tax assets are recognized expire as follows:

(Millions of yen)

	2022	2021
1st year	—	—
2nd year	—	—
3rd year	10	—
4th year	46	24
5th year	—	42
More than 5 years	13,998	11,858
Total	14,054	11,923

21. 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 only with financial institutions 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 the macroeconomic 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 or 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:

2022

(Millions of yen)	
Trade receivables	With loss allowance measured at an amount equal to lifetime expected credit losses
Balance as of January 1, 2022	75,447
Increase and collections (Net)	339
Exchange differences on translation of foreign operations	2,144
Balance as of December 31, 2022	77,929

(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, 2022	490
Increase due to recognition	230
Decrease (Written-down)	(27)
Decrease (Others)	(41)
Exchange differences on translation of foreign operations	50
Balance as of December 31, 2022	702

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.

2021

(Millions of yen)	
Trade receivables	With loss allowance measured at an amount equal to lifetime expected credit losses
Balance as of January 1, 2021	75,251
Increase and collections (Net)	(2,132)
Exchange differences on translation of foreign operations	2,328
Balance as of December 31, 2021	75,447

(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, 2021	619
Increase due to recognition	25
Decrease (Written-down)	—
Decrease (Others)	(208)
Exchange differences on translation of foreign operations	55
Balance as of December 31, 2021	490

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, 2022 and 2021 is as follows:

(Millions of yen)

2022	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	56,119	56,119	56,119	—	—	—	—	—
Other financial liabilities	47,267	47,267	47,267	—	—	—	—	—
Other payables	15,943	15,943	15,943	—	—	—	—	—
Borrowings	20,309	20,408	20,038	215	155	0	—	—
Lease liabilities	11,043	11,760	2,774	2,252	1,088	798	589	4,258
Total	150,681	151,497	142,141	2,468	1,243	798	589	4,258

(Millions of yen)

2021	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	51,974	51,974	51,974	—	—	—	—	—
Other financial liabilities	77,862	77,862	77,862	—	—	—	—	—
Other payables	8,123	8,123	8,123	—	—	—	—	—
Borrowings	17,587	17,643	14,720	2,549	216	156	1	1
Lease liabilities	9,733	10,387	2,277	1,524	1,028	668	552	4,337
Total	165,279	165,989	154,956	4,073	1,244	824	554	4,338

(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 which 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, 2022 and 2021 is as follows:

Derivative transactions to which hedge accounting is not applied

(Millions of yen)

	2022			2021		
	Contract amount	Over 1 year	Fair value	Contract amount	Over 1 year	Fair value
Forward exchange contract (put)						
USD	1,383	—	78	1,020	—	(16)
Currency and interest rate swap						
Receipt and pay in foreign currency	2,152	—	537	2,152	2,152	165

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	2022		2021	
	Profit before tax	Equity	Profit before tax	Equity
USD	19	13	13	9
CNY	42	29	41	28
EUR	11	8	32	24
JPY	(19)	(15)	(24)	(19)

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.

In case each share appreciates against the fair value in share market by 1% at the end of each consolidated fiscal year, impacts on the profit before tax and other comprehensive income are as follows.

(Millions of yen)

	2022	2021
Profit before tax	249	707
Other comprehensive income	72	67

(4) Fair value of financial instruments

1) Method of 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 measured 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 forward exchange contracts is measured 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.

iii) Investment securities

Investment securities are equity instruments mainly consisting of shares held for sale. The fair value of listed shares is determined based on market prices at shares exchanges. The investment securities are included in "Assets held for sale" and "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 held not for sale. The fair value of listed shares is determined based on market prices at shares exchanges, and the fair value of unlisted shares are 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

i) Borrowings

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.

ii) Other financial liabilities

The fair value of other financial liabilities is measured based on cash flows discounted by the Company's incremental borrowing rate.

(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)

	2022		2021	
	Carrying amount	Fair value	Carrying amount	Fair value
Financial assets				
Financial assets measured at amortized cost				
Other financial assets (Note 1)	3,372	3,372	10,139	10,132
Total financial assets measured at amortized cost	3,372	3,372	10,139	10,132
Financial assets measured at fair value through profit or loss				
Golf club memberships	137	137	134	134
Derivative financial assets	537	537	165	165
Investment securities (Notes 2)	34,468	34,468	89,057	89,057
Total financial assets measured at fair value through profit or loss	35,141	35,141	89,355	89,355
Financial assets measured at fair value through other comprehensive income				
Investment securities	7,213	7,213	6,705	6,705
Total financial assets measured at fair value through other comprehensive income	7,213	7,213	6,705	6,705
Total financial assets	45,727	45,727	106,199	106,192
Financial liabilities				
Financial liabilities measured at amortized cost				
Bonds and borrowings	20,309	20,309	17,587	17,587
Other financial liabilities (Note 1)	47,267	47,170	77,862	77,772
Total financial liabilities measured at amortized cost	67,576	67,479	95,449	95,359
Financial liabilities measured at fair value through profit or loss				
Derivative financial liabilities	—	—	16	16
Total financial liabilities measured at fair value through profit or loss	—	—	16	16
Total financial liabilities	67,576	67,479	95,466	95,376

Note1: Relating to the sale of HDS's shares, other financial assets decreased by ¥6,499 million and other financial liabilities decreased by ¥30,595 million from December 31, 2021 to December 31, 2022. Increase and decrease of cash flow related with the sales of HDS's shares are included in "Proceeds from refund of leasehold and guarantee deposits", "Proceeds from sale of investment securities" and "Payments for settlement of sales price on investment securities" on the Consolidated statement of cash flows.

- 2 Financial assets (Investment securities) measured at fair value through profit or loss, include assets held for sale. Assets held for sale is described in Note "9. Assets held for sale".

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, 2022 and 2021 are as follows:

(Millions of yen)

2022	Level 1	Level 2	Level 3	Total
Other financial assets				
Financial assets measured at fair value through profit or loss	34,030	674	437	35,141
Financial assets measured at fair value through other comprehensive income	3,491	—	3,723	7,213

(Millions of yen)

2021	Level 1	Level 2	Level 3	Total
Other financial assets				
Financial assets measured at fair value through profit or loss	89,037	299	19	89,355
Financial assets measured at fair value through other comprehensive income	3,232	—	3,473	6,705
Other financial liabilities				
Financial liabilities measured at fair value through profit or loss	—	16	—	16

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 mainly Level 3.

There were no transfers between Level 1, Level 2 and Level 3 for the years ended December 31, 2022 and 2021.

No significant assets or liabilities were measured at fair value on a non-recurring basis as of December 31, 2022 and 2021.

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 are determined using valuation techniques based on market prices of similar entities or net asset values.

(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. The fair value increases (decreases) when the EBIT ratio. 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)

	2022	2021
Balance at the beginning of the year	3,492	6,575
Total gains or losses	373	(2,162)
Profit for the year (Note 1)	47	(2,385)
Other comprehensive income for the year (Note 2)	326	223
Purchase	710	483
Sales	(416)	(1,404)
Balance at the end of the year	4,160	3,492

Note: 1. Gains and losses recognized in profit or loss mainly consist of gains or losses on valuation of financial instruments sold during the year, and are included in "Finance income" 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, 2022 and 2021 are as follows:

(Millions of yen)

	2022	2021
Time deposits with deposit terms of more than three months	1,086	1,322
Golf club memberships	137	134
Investment securities	7,651	51,243
Others	2,900	8,982
Total	11,774	61,681
Current	1,733	7,821
Non-current	10,041	53,860
Total	11,774	61,681

Investment securities held by the Group are equity instruments mainly consisting of corporate shares. Investment securities held for sale are measured at fair value through profit or loss. Other 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, 2022 and 2021 are as follows:

1) The details of equity instruments measured at fair value through profit or loss

(Millions of yen)

	2022	2021
Harmonic Drive Systems Inc.	34,030	89,037
Total	34,030	89,037
Dividend income	202	183

Note: Financial assets (investment securities) measured at fair value through profit or loss include assets held for sale. Assets held for sale is described in Note "9. Assets held for sale".

2) The details of equity instruments measured through other comprehensive income

(Millions of yen)

	2022	2021
Central Japan Railway Company	1,621	1,535
NABCO KANAGAWA PTY,LTD.	722	651
R.K.deep Sea Technologies Limited	617	457
SINFONIA TECHNOLOGY CO., LTD.	590	525
Kyodo Yushi Co., Ltd.	572	536
WEST JAPAN RAILWAY TECHNOS Co., Ltd.	547	536
WEST JAPAN RAILWAY TECHSIA Co., Ltd.	530	650
Keio Corporation	324	340
Eologix Sensor Technology GmbH	283	—
WEST JAPAN RAILWAY COMPANY	258	216
East Japan Railway Company	192	180
Others	958	1,078
Total	7,213	6,705
Dividend income	64	59

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, 2022 and 2021 are as follows.

(Millions of yen)

	2022	2021
Fair value	352	885
Cumulative gains (losses)	244	460
Dividend income	—	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 amounts of cumulative gains or losses in other comprehensive income transferred to retained earnings were ¥243 million and ¥388 million for the years ended December 31, 2022 and 2021, respectively.

22. 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, 2021	400,000,000	125,133,799
Increase	—	—
Decrease (Note:3)	—	(4,069,700)
As of December 31, 2021	400,000,000	121,064,099
Increase	—	—
Decrease	—	—
As of December 31, 2022	400,000,000	121,064,099

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

2. Issued shares are fully paid-up.

3. Decrease by cancellation of treasury shares authorized by the Company's Board of Directors on January 29, 2021 and July 15, 2021.

(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, 2021	990,749	2,471
Acquisition based on authorization of Board of Directors	4,069,700	20,000
Cancellation based on authorization of Board of Directors	(4,069,700)	(18,314)
Acquisitions through purchasing request of shares less than one unit	1,427	6
Sale through selling request of shares less than one unit	(40)	(0)
Acquisition through Board Benefit Trust	188,400	904
Decrease through Board Benefit Trust	(59,525)	(199)
Decrease through exercise of share options	(29,800)	(84)
As of December 31, 2021	1,091,211	4,784
Acquisitions through purchasing request of shares less than one unit	681	2
Sale through selling request of shares less than one unit	(40)	(0)
Decrease through Board Benefit Trust	(28,402)	(117)
Decrease through exercise of share options	(4,900)	(22)
As of December 31, 2022	1,058,550	4,646

Note: The details of the share option and the Board Benefit Trust are described in Note "27. 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 ¥1,309 million and the number of the treasury shares was 316,713 shares as of December 31, 2022.

(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, 2022 and 2021 is as follows:

2022

Resolution	Total amount of dividends (millions of yen)	Dividend per share (yen)	Record date	Effective date
Ordinary General Meeting of Shareholders on March 24, 2022 (Note 1)	4,692	39	December 31, 2021	March 25, 2022
Board of Directors' Meeting on July 29, 2022 (Note 2)	4,693	39	June 30, 2022	August 31, 2022

Note:1. The total amount of dividends determined by the Ordinary General Meeting of Shareholders on March 24, 2022 includes the dividends of ¥13 million on the Company's shares held by the trust account of Mizuho Trust & Banking Co., Ltd. (sub trustee: Custody Bank of Japan, Ltd. (trust account E)) in relation to the Board Benefit Trust.
2. The total amount of dividends determined by the Board of Directors Meeting on July 29, 2022 includes the dividends of ¥12 million on the Company's shares held by the trust account of Mizuho Trust & Banking Co., Ltd. (sub trustee: Custody Bank of Japan, Ltd. (trust account E)) in relation to the Board Benefit Trust.

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 23, 2023	4,693	39	December 31, 2022	March 24, 2023

Note: The total amount of dividends determined by the Ordinary General Meeting of Shareholders on March 23, 2023 includes the dividends of ¥12 million on the Company's shares held by the trust account of Mizuho Trust & Banking Co., Ltd. (sub trustee: Custody Bank of Japan, Ltd. (trust account E)) in relation to the Board Benefit Trust.

2021

Resolution	Total amount of dividends (millions of yen)	Dividend per share (yen)	Record date	Effective date
Ordinary General Meeting of Shareholders on March 23, 2021 (Note 1)	4,228	34	December 31, 2020	March 24, 2021
Board of Directors' Meeting on July 30, 2021 (Note 2)	4,572	38	June 30, 2021	August 31, 2021

Note:1. The total amount of dividends determined by the Ordinary General Meeting of Shareholders on March 23, 2021 includes the dividends of ¥7 million on the Company's shares held by the trust account of Mizuho Trust & Banking Co., Ltd. (sub trustee: Custody Bank of Japan, Ltd. (trust account E)) in relation to the Board Benefit Trust.
2. The total amount of dividends determined by the Board of Directors Meeting on July 30, 2021 includes the dividends of ¥13 million on the Company's shares held by the trust account of Mizuho Trust & Banking Co., Ltd. (sub trustee: Custody Bank of Japan, Ltd. (trust account E)) in relation to the Board Benefit Trust.

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, 2022	4,692	39	December 31, 2021	March 25, 2022

Note: The total amount of dividends determined by the Ordinary General Meeting of Shareholders on March 24, 2022 includes the dividends of ¥13 million on the Company's shares held by the trust account of Mizuho Trust & Banking Co., Ltd. (sub trustee: Custody Bank of Japan, Ltd. (trust account E)) in relation to the Board Benefit Trust.

(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, 2022 and 2021 are as follows:

2022

(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)	786	(200)	586
Net changes in financial assets measured at fair value through other comprehensive income	533	(89)	444
Sub-total	1,319	(289)	1,030
Items that may be reclassified subsequently to profit or loss			
Exchange differences on translation of foreign operations	8,088	—	8,088
Sub-total	8,088	—	8,088
Total	9,407	(289)	9,118

Note: No reclassification adjustments arose from the above items.

2021

(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)	1,430	(282)	1,148
Net changes in financial assets measured at fair value through other comprehensive income	340	(66)	274
Sub-total	1,770	(348)	1,422
Items that may be reclassified subsequently to profit or loss			
Exchange differences on translation of foreign operations	6,480	—	6,480
Sub-total	6,480	—	6,480
Total	8,250	(348)	7,902

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, 2022 and 2021 are as follows.

	2022	2021
ROA (%)	2.0	15.6
ROE (%)	3.9	29.6
Percentage of equity attributable to owners of the parent (%)	54.1	49.8

23. 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 by segment described in Note "5. Business segments".

The Group has no performance obligation as an agent.

(Millions of yen)			
Business segments	Main products	2022	2021
Component Solutions Business	Precision reduction gear	89,676	77,495
	Hydraulic equipment	50,953	60,626
	Others	—	8
	Sub-total	140,629	138,130
Transport Solutions Business	Railroad vehicle equipment	25,497	25,761
	Aircraft equipment	14,255	13,174
	Commercial vehicle equipment	12,634	12,087
	Marine vessel equipment	13,112	11,349
	Others	5,451	5,373
	Sub-total	70,950	67,744
Accessibility Solutions Business	Automatic doors	78,561	75,108
	Sub-total	78,561	75,108
Others	Packaging machines	16,698	16,594
	Others	1,853	2,226
	Sub-total	18,551	18,820
Total		308,691	299,802

Note: The amounts of sales are shown 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, 2022	December 31, 2021
Accounts receivable from contracts with customers	77,227	74,957
Contract assets	2,165	2,065
Contract liabilities	7,652	5,704

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 on 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, 2022, which was included in contract liabilities at the beginning of the year ended December 31, 2022 is ¥4,876 million. In addition, the amount of revenue recognized from performance obligations satisfied (or partially satisfied) in previous periods 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, 2022 is ¥230 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 one year or less.

(Millions of yen)

	2022	2021
Within one year	23,033	24,966
More than one year	32,690	23,271
Total	55,723	48,237

(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, 2022. 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.

24. Details of expenses by nature

Cost of sales and selling, general and administrative expenses for the years ended December 31, 2022 and 2021 consist of the following:

	(Millions of yen)	
	2022	2021
Cost of materials and others allocated	138,625	143,910
Employee benefit expenses (Note 1)	66,832	62,623
Research and development costs (Note 2)	10,916	9,618
Depreciation and amortization	13,556	12,174
Travel and transportation costs	2,097	1,492
Others	59,601	40,462
Total	291,627	270,280

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.

25. Other income and expenses

(1) Other income

Other income for the years ended December 31, 2022 and 2021 consists of the following:

	(Millions of yen)	
	2022	2021
Rental income	138	145
Gain on sales of property, plant and equipment	40	25
Gain on sales of investment property	117	—
Insurance proceeds received	115	—
Government grant income	179	158
Compensation received	221	221
Others	562	632
Total	1,373	1,180

(2) Other expenses

Other expenses for the years ended December 31, 2022 and 2021 consist of the following

	(Millions of yen)	
	2022	2021
Loss on sale and disposal of property, plant and equipment	127	407
Loss on sale and disposal of investment property	52	—
Rental costs	8	5
Others	153	273
Total	340	686

26. Finance income and finance costs

(1) Finance income

Finance income for the years ended December 31, 2022 and 2021 consists of the following:

(Millions of yen)

	2022	2021
Interest income		
Financial assets measured at amortized cost	338	286
Dividend income		
Financial assets measured at fair value through profit or loss	202	183
Financial assets measured at fair value through other comprehensive income	64	59
Gain on valuation of investment securities		
Financial assets measured at fair value through profit or loss	81	19
Gain on sale of investment securities		
Financial assets measured at fair value through profit or loss	—	143
Gain from changes in fair value of golf club membership		
Financial assets measured at fair value through profit or loss	—	8
Gain from changes in fair value of derivatives		
Financial assets measured at fair value through profit or loss	—	4
Gain from remeasurement relating to discontinuing the use of the equity method (Note)	—	125,107
Net foreign exchange gain	24	1,168
Total	708	126,977

Note: Gain on valuation of HDS Shares based on share price (fair value) on the date of discontinuing the use of the equity method for the year ended December 31, 2021.

(2) Finance costs

Finance costs for the years ended December 31, 2022 and 2021 consist of the following:

(Millions of yen)

	2022	2021
Interest expenses		
Financial liabilities measured at amortized cost	104	98
Lease liabilities	95	70
Loss on valuation of derivatives (Note 1)		
Financial assets measured at fair value through profit or loss	13	2,546
Loss on valuation of Investment securities (Note 2)		
Financial assets measured at fair value through profit or loss	5,616	54,412
Total	5,828	57,126

Note1: Valuation loss on reversal of gain on valuation of HDS Shares options recognized in prior years as a result of selling share options at payment price. The company exercised the options on the same date for the year ended December 31, 2021.

2: Loss on valuation resulting from the remeasurement of HDS shares based on the closing price (fair value) as of December 31, 2021. With regard to the partial completion of HDS share sales ¥4,872 million, the difference between total sales price based on the average daily VWAP during the period of sale and the fair value as of December 31, 2021, was offset by ¥10,488 million, the valuation loss resulting from the remeasurement of HDS shares held continuously by the Company based on the closing price (fair value) as of December 31, 2022.

27. 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; hereinafter "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, 2022 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

2) Number of share options and weighted averaged exercise price

	2022		2021	
	Number of share options	weighted average exercise price	Number of share options	weighted average exercise price
Balance at the beginning of the year	323	1	621	1
Exercised (Note 1)	(49)	1	(298)	1
Balance at the end of the year (Note 2)	274	1	323	1
Exercisable balance at the end of the year	274	1	323	1

Note:1. The weighted average share prices of the share options exercised is ¥3,200 and ¥4,761 for the years ended December 31, 2022 and 2021, respectively.

2. The weighted average exercise price of unexercised shares options is ¥1 each as of December 31, 2022 and 2021. The weighted average of the remaining contractual years is 17.9 years and 19.0 years for the years ended December 31, 2022 and 2021.

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, 2022 and December 31, 2021.

4) Share-based payment expenses

No share-based payment expenses are recognized for the year ended December 31, 2022 and December 31, 2021.

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

1) Overview of Board Benefit Trust

The Company introduced the Board Benefit Trust.

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

	2022	2021
	Number of points	Number of points
Balance at the beginning of the year	180,295	193,587
Granted	63,795	49,450
Exercised	(30,101)	(62,742)
Balance at the end of the year	213,989	180,295

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 fair value of the points granted is ¥3,210 and ¥4,789 for the years ended December 31, 2022 and 2021, respectively.

4) Cost associated with the Board Benefit Trust

Cost associated with the Board Benefit Trust for the years ended December 31, 2022 and 2021 is ¥217 million and ¥267 million, respectively. The cost is included in "Selling, general and administrative expenses" in the consolidated statement of profit or loss.

28. 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:

		2022	2021
Profit for the year attributable to owners of the parent	(millions of yen)	9,464	64,818
Weighted average number of ordinary shares	(thousand shares)	119,998	121,228
Basic earnings per share	(yen)	78.87	534.67

(2) Calculation basis of diluted earnings per share

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

		2022	2021
Diluted profit for the year attributable to owners of the parent	(millions of yen)	9,464	64,818
Weighted average number of ordinary shares	(thousand shares)	119,998	121,229
Effect of share options in the form of subscription rights to shares	(thousand shares)	27	32
Diluted weighted average number of ordinary shares	(thousand shares)	120,025	121,261
Diluted earnings per share	(yen)	78.85	534.53

29. Business combinations

There are no significant business combinations for the year ended December 31, 2022 and December 31, 2021.

30. Subsidiaries

(1) Major subsidiaries of the Group

Major subsidiaries of the Group as of December 31, 2022 and 2021 are as follows;

Company name	Location	Main business	Percentage of voting rights (%)	
			2022	2021
NABCO DOOR Ltd.	Kita-ku, Osaka-shi 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
PACRAFT 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.

31. 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)

	2022	2021
Outstanding receivables	1,103	776
Outstanding payables	359	447

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

2) Amounts of related party transaction

(Millions of yen)

	2022	2021
Sales	4,158	3,943
Purchases	4,051	3,938

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:

2022

(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	310	220	90

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

2021

(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	363	250	112

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

32. Commitments

The Group's commitments as of December 31, 2022 and 2021 are as follows:

	(Millions of yen)	
	2022	2021
Commitments	14,479	188

33. Contingent liabilities

There are no contingent liabilities that need disclosure as of December 31, 2022 and 2021.

34. Subsequent events

(Partial completion of share sales)

With regard to the partial sale of HDS shares on November 15, 2022 for which the settlement of the sales price had not been completed, the Company was notified by the purchaser, J.P. Morgan Securities plc (hereinafter "J.P. Morgan"), regarding the completion of the sale. Upon receiving this notice, settlement of the sales price was carried out on February 8, 2023 based on the average daily VWAP during the period of sales, and the risks and rewards of the HDS shares were transferred from the Company to the purchaser.

As a result of the above, the Company will record ¥0.9 billion, the difference between the total sales price based on the average daily VWAP during the period of sales and the fair value as of December 31, 2022, as finance income for the 1st quarter of the year ending December 31, 2023.

(1) Shares subject to sale : Common shares of Harmonic Drive Systems Inc common stock

(2) Number of shares sold : 4,580,100 shares

(3) Total sales price : ¥17.9 billion

*Finalized sales price between the Company and J.P. Morgan

(4) Period of sale : November 16, 2022, to February 1, 2023

*Period of sale by J.P. Morgan

Note: The carrying amount of the shares sold above of ¥17 billion is included in assets held for sale on the consolidated statement of financial position as of December 31, 2022. The Company paid ¥5.7 billion, the difference between the finalized sales price and the ¥23.6 billion deposit received at the start of the share sale ("Other financial liabilities"), to J.P.Morgan on February 8, 2023.