

Consolidated Financial Statements

2022

Consolidated Financial Statements & Independent Auditor's Report

For the Year ended March 31, 2022 Toray Industries, Inc. and Subsidiaries

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Consolidated Statement of Financial Position

March 31, 2021 and 2022

			Millions of yen
Assets	Note	March 31, 2021	March 31, 2022
Current assets			
Cash and cash equivalents	7	236,354	229,301
Trade and other receivables	8	522,259	576,867
Inventories	9	369,110	469,316
Other financial assets	16	6,136	7,826
Other current assets	17	47,180	58,209
Assets held for sale	10	-	31,717
Total current assets		1,181,039	1,373,236
Non-current assets			
Property, plant and equipment	11	998,358	990,733
Right-of-use assets	12	50,481	47,753
Goodwill	13	85,565	88,122
Intangible assets	13	78,305	80,713
Investments accounted for using equity method	15	174,142	183,454
Other financial assets	16	217,341	214,990
Deferred tax assets	18	14,414	22,286
Retirement benefit asset	22	34,879	28,384
Other non-current assets	17	14,315	14,210
Total non-current assets		1,667,800	1,670,645
Total assets		2,848,839	3,043,881

			Millions of yen
Liabilities and Equity	Note	March 31, 2021	March 31, 2022
Current liabilities			
Trade and other payables	19	282,812	327,454
Bonds and borrowings	20	278,678	279,404
Lease liabilities	12	10,635	10,591
Other financial liabilities	21	12,872	12,815
Income taxes payable	18	11,956	15,870
Other current liabilities	23	84,425	91,975
Liabilities directly associated with assets held for sale	10	-	2,942
Total current liabilities		681,378	741,051
Non-current liabilities			
Bonds and borrowings	20	654,608	618,637
Lease liabilities	12	30,006	27,026
Other financial liabilities	21	6,699	5,165
Deferred tax liabilities	18	41,516	42,667
Retirement benefit liability	22	100,852	98,381
Other non-current liabilities	23	11,505	11,305
Total non-current liabilities		845,186	803,181
Total liabilities		1,526,564	1,544,232
Equity	24		
Equity attributable to owners of parent			
Share capital		147,873	147,873
Capital surplus		120,493	120,698
Retained earnings		899,994	978,980
Treasury shares		(19,985)	(19,813)
Other components of equity		89,476	177,853
Total equity attributable to owners of parent		1,237,851	1,405,591
Non-controlling interests		84,424	94,058
Total equity		1,322,275	1,499,649
Total liabilities and equity		2,848,839	3,043,881

Consolidated Statement of Profit or Loss

Years ended March 31, 2021 and 2022

	Note	2021	2022
Revenue	26	1,883,600	2,228,523
Cost of sales		(1,506,100)	(1,792,554)
Gross profit		377,500	435,969
Selling, general and administrative expenses		(286,981)	(305,762)
Other income	27	5,388	5,781
Other expenses	28	(40,028)	(35,423)
Operating income		55,879	100,565
Finance income	29	6,099	6,661
Finance costs	29	(9,224)	(6,253)
Share of profit of investments accounted for using equity method	15	12,812	19,342
Profit before tax		65,566	120,315
Income tax expense	18	(18,227)	(26,706)
Profit		47,339	93,609
Profit attributable to:			
Owners of parent		45,794	84,235
Non-controlling interests		1,545	9,374
		47,339	93,609
Earnings per share:	31		
Basic (Yen)		28.61	52.63
Diluted (Yen)		28.57	52.19

Consolidated Statement of Comprehensive Income

Years ended March 31, 2021 and 2022

		2024	Millions of yen
	Note	2021	2022
Profit		47,339	93,609
Other comprehensive income	30		
Items that will not be reclassified to profit or loss			
Investments in equity instruments		35,002	(161)
Remeasurements of defined benefit plans		10,249	9,138
Share of other comprehensive income of investments accounted for using equity method		663	227
		45,914	9,204
Items that may be reclassified to profit or loss			
Cash flow hedges		(389)	700
Deferred costs of hedging		613	(71)
Exchange differences on translation		54,941	97,940
Share of other comprehensive income of investments accounted for using equity method		2	7
		55,167	98,576
Total other comprehensive income		101,081	107,780
Comprehensive income		148,420	201,389
Comprehensive income attributable to:			
Owners of parent		143,039	187,909
Non-controlling interests		5,381	13,480
		148,420	201,389

Consolidated Statement of Changes in Equity

Years ended March 31, 2021 and 2022

													Milli	ons of yen
	Note							2021						
	_				Equ	ity attributa								
					_		Othe	er compon	ents of equ	ity		ı		
		Share capital	Capital surplus	Retained earnings	Treasury shares	Investments in equity instruments	Cash flow hedges	Deferred costs of hedging	Exchange differences on translation	Remeasurements of defined benefit plans	Total other components of equity	Total equity attributable to owners of parent	Non-controlling interests	Total equity
At April 1, 2020		147,873	121,987	860,128	(20,308)	49,260	(217)	(214)	(42,434)	-	6,395	1,116,075	84,771	1,200,846
Profit		-	-	45,794	-	-	-	-	-	-	-	45,794	1,545	47,339
Other comprehensive income		-	-	-	-	34,806	(387)	613	52,113	10,100	97,245	97,245	3,836	101,081
Comprehensive income		-	-	45,794	-	34,806	(387)	613	52,113	10,100	97,245	143,039	5,381	148,420
Exercise of share acquisition rights		-	(323)	-	323	-	-	-	-	-	-	0	-	0
Share-based payment transactions	32	-	355	-	-	-	-	-	-	-	-	355	-	355
Dividends	25	-	-	(20,012)	-	-	-	-	-	-	-	(20,012)	(3,532)	(23,544)
Changes in ownership interest in subsidiaries		-	(1,696)	-	-	-	-	-	-	-	-	(1,696)	(2,196)	(3,892)
Transfer from other components of equity to retained earnings		-	-	14,084	-	(3,984)	-	-	-	(10,100)	(14,084)	-	-	-
Other changes		-	170	-	(0)	-	(80)	-	-	-	(80)	90	-	90
Total transactions with owners and other		-	(1,494)	(5,928)	323	(3,984)	(80)	-	-	(10,100)	(14,164)	(21,263)	(5,728)	(26,991)
At March 31, 2021		147,873	120,493	899,994	(19,985)	80,082	(684)	399	9,679	-	89,476	1,237,851	84,424	1,322,275

	Note							2022					Milli	ons of yen
	Equity attributable to owners of parent													
					_		Oth	er compon	ents of equ	uity				
		Share capital	Capital surplus	Retained earnings	Treasury shares	Investments in equity instruments	Cash flow hedges	Deferred costs of hedging	Exchange differences on translation	Remeasurements of defined benefit plans	Total other components of equity	Total equity attributable to owners of parent	Non-controlling interests	Total equity
At April 1, 2021		147,873	120,493	899,994	(19,985)	80,082	(684)	399	9,679	-	89,476	1,237,851	84,424	1,322,275
Profit		-		84,235	-	-		-		-		84,235	9,374	93,609
Other comprehensive income		-	-	-	-	(140)	703	(71)	93,707	9,475	103,674	103,674	4,106	107,780
Comprehensive income			-	84,235	-	(140)	703	(71)	93,707	9,475	103,674	187,909	13,480	201,389
Exercise of share acquisition rights		-	(173)	-	173	-	-	-	-		-	0	-	0
Share-based payment transactions	32	-	384	-	-	-	-	-	-		-	384	-	384
Dividends	25	-		(20,018)	-	-	-	-	-	-	-	(20,018)	(3,150)	(23,168)
Changes in ownership interest in subsidiaries			(6)	-		-			-		-	(6)	21	15
Transfer from other components of equity to retained earnings				14,769	-	(5,294)	-		-	(9,475)	(14,769)		-	
Other changes		-	0	-	(1)	-	(528)	-	-	-	(528)	(529)	(717)	(1,246)
Total transactions with owners and other			205	(5,249)	172	(5,294)	(528)	-	-	(9,475)	(15,297)	(20,169)	(3,846)	(24,015)
At March 31, 2022		147,873	120,698	978,980	(19,813)	74,648	(509)	328	103,386		177,853	1,405,591	94,058	1,499,649

Consolidated Statement of Cash Flows

Years ended March 31, 2021 and 2022

		Millions of yen
No	te 2021	2022
Cash flows from operating activities		
Profit before tax	65,566	120,315
Depreciation and amortization	115,819	120,369
Impairment losses (reversal of impairment losses)	28,867	27,444
Share of loss (profit) of investments accounted for using equity method	(12,812)	(19,342)
Finance income and finance costs	2,264	(660)
Decrease (increase) in trade and other receivables	(13,916)	(33,871)
Decrease (increase) in inventories	46,702	(75,947)
Increase (decrease) in trade and other payables	(7,247)	28,408
Changes in retirement benefit asset and liability	(7,467)	(5,867)
Other adjustments	9,819	1,014
Subtotal	227,595	161,863
Interest received	1,538	1,501
Dividends received	14,669	17,561
Interest paid	(5,738)	(4,963)
Income taxes refund (paid)	(26,473)	(37,676)
Net cash provided by operating activities	211,591	138,286
Cash flows from investing activities		
Purchase of property, plant and equipment, and intangible assets	(122,483)	(92,195)
Proceeds from sale of property, plant and equipment, and intangible assets	1,459	3,284
Payments for acquisition of subsidiaries	-	(4,822)
Purchase of investments	(2,126)	(583)
Proceeds from sale and redemption of investments	21,129	37,911
Other inflows (outflows) of cash	4,149	(763)
Net cash used in investing activities	(97,872)	(57,168)
Cash flows from financing activities 3	4	
Net increase (decrease) in short-term borrowings	4,731	(32,646)
Proceeds from issuance of bonds and long-term borrowings	75,042	72,487
Redemption of bonds and repayments of long-term borrowings	(114,916)	(106,547)
Repayments of lease liabilities	(11,615)	(11,638)
Dividends paid to owners of parent	(20,018)	(20,021)
Dividends paid to non-controlling interests	(3,532)	(3,150)
Other inflows (outflows) of cash	905	(3)
Net cash provided by (used in) financing activities	(69,403)	(101,518)
Effect of exchange rate changes on cash and cash equivalents	8,335	14,401
Net increase (decrease) in cash and cash equivalents	52,651	(5,999)
Cash and cash equivalents at beginning of period	183,703	236,354
Cash and cash equivalents at end of period 7		230,355
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Notes to the Consolidated Financial Statements

Years ended March 31, 2021 and 2022

Note 1. Reporting Entity

Toray Industries, Inc. (the "Company") is a stock company domiciled in Japan and the registered address of its head office is Chuo-ku, Tokyo. The consolidated financial statements for the year ended March 31, 2022 (from April 1, 2021 to March 31, 2022) include the accounts of the Company and its subsidiaries (the "Group") and the Group's interests in associates and joint arrangements. The ultimate parent of the Group is the Company.

The Group's main businesses include "Fibers & Textiles," "Performance Chemicals," "Carbon Fiber Composite Materials," "Environment & Engineering" and "Life Science" businesses (see "Note 6. Segment Information").

Note 2. Basis of Preparation

1. Statement of compliance with IFRS

The consolidated financial statements of the Group have been prepared in accordance with International Financial Reporting Standards ("IFRS") pursuant to Article 93 of the Regulation on Terminology, Forms, and Preparation Methods of Consolidated Financial Statements (Ministry of Finance Order No. 28 of 1976), as the Group meets the requirements for a "specified company complying with designated international accounting standards" set forth in Article 1-2 of the regulation.

2. Approval of consolidated financial statements

The Group's consolidated financial statements were authorized for issue on June 23, 2022 by Akihiro Nikkaku, President and Representative Member of the Board.

3. Basis of measurement

The Group's consolidated financial statements have been prepared on a historical cost basis, except for certain items including financial instruments measured at fair value.

4. Presentation currency

The Group's consolidated financial statements are presented in Japanese yen (millions of yen, rounded off to the nearest million yen), which is the Company's functional currency.

Note 3. Significant Accounting Policies

1. Basis of consolidation

The consolidated financial statements of the Group are prepared based on uniform accounting policies.

(1) Subsidiaries

A subsidiary is an entity that is controlled by the Group. The Group controls an entity when it is exposed, or has rights, to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity.

The financial statements of subsidiaries are included in the consolidated financial statements of the Group from the date on which the Company obtains control over the subsidiaries until the date on which the Company loses that control.

All intragroup balances and transactions and any unrealized gains or losses arising from intragroup transactions are eliminated in preparing the consolidated financial statements.

Any changes in the Company's ownership interests in the consolidated subsidiaries that do not result in loss of control are accounted for as equity transactions. Any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received is recognized directly in equity as equity attributable to owners of parent.

If the Company loses control of a subsidiary, the Group measures and recognizes any investment retained at its fair value at the date when control is lost. Any gain or loss resulting from loss of control is recognized in profit or loss.

Non-controlling interests in subsidiaries are identified separately from the Group's interests. Total comprehensive income of subsidiaries is attributed to owners of parent and to non-controlling interests, even if this results in the non-controlling interests having a deficit balance.

If the fiscal year-end of a subsidiary is not the same as that of the consolidated financial statements, the subsidiary provisionally closes its accounts for consolidation purposes at the fiscal year-end of the consolidated financial statements.

(2) Associates

An associate is an entity over which the Group has significant influence but does not have control or joint control in the entity's decision-making on the financial and operating policies. If the Group holds 20 to 50 percent of the voting power of an entity, it is usually presumed that the Group has significant influence.

Investments in associates are recognized at cost at the date of acquisition and accounted for using the equity method from the date on which the Group obtains significant influence over the associates to the date on which the Group loses that influence.

Investments in associates include goodwill recognized upon acquisition.

(3) Joint arrangements

A joint arrangement is an arrangement where decisions about the relevant activities require the unanimous consent of the parties sharing control.

A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the arrangement. Investments in joint ventures are accounted for using the equity method.

A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets, and obligations for the liabilities, relating to the arrangement. For investments in joint operations, the Group recognizes assets, liabilities, revenues and expenses according to the Group's shares in the assets, liabilities, revenues and expenses of the joint operation.

2. Business combinations

Business combinations are accounted for using the acquisition method. The consideration for an acquisition is measured as the sum of the acquisition-date fair values of the assets transferred in exchange for control of the acquiree, the liabilities incurred by former owners of the acquiree and the equity interests issued by the Group.

When the Group acquires a business, the Group classifies and designates the identifiable assets acquired and liabilities assumed on the basis of the contractual terms, economic conditions and other pertinent conditions as they exist at the acquisition date. Those assets and liabilities are, in principle, measured at their acquisition-date fair values.

Non-controlling interests in an acquiree are measured at the non-controlling interests' proportionate share in the recognized amounts of the acquiree's identifiable net assets.

The excess of (a) the aggregate of the consideration for an acquisition, the amount of any non-controlling interest in the acquiree and the acquisition-date fair value of the Group's previously held equity interest in the acquiree over (b) the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed is recognized as goodwill. If (b) is in excess of (a), the gain is recognized in profit or loss.

Acquisition-related costs incurred in a business combination are recognized as expenses in the periods in which the costs are incurred.

3. Foreign currency translation

(1) Foreign currency transactions

Each individual entity within the Group has its own functional currency, and their transactions are measured at their own functional currencies.

Foreign currency transactions are translated into the functional currency at the spot exchange rate at the date of the transaction or at the rate that approximates the spot exchange rate.

Monetary assets and liabilities denominated in foreign currencies are translated into the functional currency at the exchange rate at the end of the reporting period. Non-monetary assets and liabilities that are denominated in foreign currencies and measured at cost are translated to the functional currency using the spot exchange rate at the date of the transaction. Non-monetary assets and liabilities that are denominated in foreign currencies and measured

at fair value are translated into the functional currency at the spot exchange rate at the date when the fair value is determined.

Exchange differences arising from the translation or settlement are recognized in profit or loss. However, exchange differences arising from equity instruments measured at fair value through other comprehensive income and cash flow hedges are recognized in other comprehensive income.

(2) Foreign operations

The assets and liabilities of foreign operations are translated into Japanese yen using the exchange rate at the end of the reporting period, and the income and expenses of foreign operations are translated into Japanese yen using the average exchange rate for the reporting period, except in cases where the exchange rate fluctuates significantly. Exchange differences arising from the translation of a foreign operation's financial statements are recognized in other comprehensive income.

On the disposal of a foreign operation, the cumulative exchange differences relating to the foreign operation are reclassified to profit or loss for the period of disposal.

4. Financial instruments

(1) Non-derivative financial assets

(a) Initial recognition and measurement

The Group initially recognizes trade and other receivables on the date when they arise and other financial assets on the trade date when the Group becomes a party to the contract.

Financial assets are classified as either of the followings at initial recognition:

(i) Financial assets measured at amortized cost

The Group classifies a financial asset as those measured at amortized cost only if both of the following conditions are met:

- the financial asset is held within a business model with an objective of collecting contractual cash flows, and
- the contractual terms of the financial asset give rise on specific dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.
- (ii) Debt instruments measured at fair value through other comprehensive income

The Group classifies a financial asset as a debt instrument measured at fair value through other comprehensive income only if both of the following conditions are met:

- the financial asset is held within a business model with an objective of both collecting contractual cash flows and selling financial assets, and
- the contractual terms of the financial asset give rise on specific dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.
- (iii) Equity instruments measured at fair value through other comprehensive income

Equity instruments such as shares held primarily for the purposes of strengthening business relationships with customers and expanding businesses are designated as those measured at fair value through other comprehensive income. This designation is applied consistently.

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

Financial assets that are not classified as any of the above are classified as those measured at fair value through profit or loss.

Except for financial assets measured at fair value through profit or loss, financial assets are initially measured at fair value plus transaction costs. Transaction costs of financial assets measured at fair value through profit or loss are recognized as profit or loss.

(b) Subsequent measurement

After initial recognition, financial assets are measured based on their classification as follows:

- Financial assets measured at amortized cost
 Such assets are measured at amortized cost using the effective interest method.
- (ii) Debt instruments measured at fair value through other comprehensive income

Such debt instruments are measured at fair value and subsequent changes in the fair value are recognized in other comprehensive income, except that foreign exchange gains or losses, impairment losses, and finance income based on the effective interest method are recognized in profit or loss. When these debt

instruments are derecognized, cumulative gains or losses recognized in other comprehensive income are reclassified to profit or loss as reclassification adjustments.

(iii) Equity instruments measured at fair value through other comprehensive income

Such equity instruments are measured at fair value and subsequent changes in the fair value are recognized in other comprehensive income.

When these equity instruments are derecognized, cumulative gains or losses recognized through other comprehensive income are reclassified from other components of equity to retained earnings. Dividends and interest income from these equity instruments are recognized as finance income in profit or loss.

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

Such financial assets are measured at fair value and subsequent changes in the fair value are recognized in profit or loss.

(c) Derecognition

The Group derecognizes a financial asset when the contractual rights to the cash flows from the financial asset expire or when the Group transfers substantially all the risks and rewards of ownership of the financial asset.

(d) Impairment of financial assets

Allowance for doubtful accounts is recognized for expected credit losses in respect of financial assets measured at amortized cost. Accordingly, the Group assesses whether the credit risk on these financial assets has increased significantly since initial recognition at the end of each reporting period. If the credit risk on a financial asset has not increased significantly since initial recognition, the allowance for doubtful accounts for the financial asset is measured at an amount equal to the 12-month expected credit losses. If the credit risk on a financial asset has increased significantly since initial recognition, the allowance for doubtful accounts for the financial asset is measured at an amount equal to the lifetime expected credit losses. However, an allowance for doubtful accounts for trade receivables without any significant financing components is always measured at an amount equal to the lifetime expected credit losses.

Whether the credit risk has increased significantly or not is determined mainly based on past due information and credit ratings. A financial asset is considered credit-impaired primarily when there is a substantial delay in payment or a significant financial difficulty of the borrower.

The expected credit loss is measured by reflecting the time value of money on the difference between the total contractual cash flows that are due to the Group and the total cash flows that the Group expects to receive, and is recognized in profit or loss.

(2) Non-derivative financial liabilities

(a) Initial recognition and measurement

Non-derivative financial liabilities are classified, at initial recognition, as financial liabilities measured at amortized cost and financial liabilities measured at fair value through profit or loss. All financial liabilities are initially measured at fair value, except for financial liabilities measured at amortized cost, which are measured at fair value less directly attributable transaction costs.

- (b) Subsequent measurement
 - (i) Financial liabilities measured at amortized cost

Such liabilities are measured at amortized cost using the effective interest method. Amortization using the effective interest method and gains or losses on derecognition are recognized in profit or loss.

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

Such financial liabilities are measured at fair value and subsequent changes in the fair value are recognized in profit or loss.

(c) Derecognition

The Group derecognizes a financial liability when it is extinguished, i.e., when the obligation specified in the contract is performed, discharged, cancelled or expired.

(3) Hedge accounting and derivatives

(a) Qualifying hedging instruments and hedged items

The Group enters into derivative transactions, including forward exchange contracts, cross-currency swaps and interest rate swaps, to manage currency risk and interest rate risk. As the prerequisite for application of hedge accounting, at the inception of a hedge, the Group formally designates and documents the relationships

between the hedging instruments and hedged items, and its risk management objectives and strategies. The documentation includes concrete items or transactions of hedging instruments and hedged items, the nature of the risks being hedged, and methods to assess effectiveness of hedging relationships. Furthermore, the Group evaluates on an ongoing basis whether a hedging instrument is highly effective during its term in offsetting changes in fair values or cash flows of the relevant hedged item.

Derivatives for which hedge accounting is not applied are classified as "financial assets measured at fair value through profit or loss" or "financial liabilities measured at fair value through profit or loss" and accounted for based on their classification.

(b) Cash flow hedges

The effective portion of the gain or loss on hedging instruments is recognized in other comprehensive income as cash flow hedges and the cumulative gain or loss is included in other components of equity. The gain or loss relating to the ineffective portion is recognized immediately in profit or loss. The portion of the foreign currency basis spread related to cross-currency swaps is excluded from hedging instruments and recognized in other comprehensive income as deferred costs of hedging, and the cumulative amount is included in other components of equity.

The amount accumulated in other components of equity is reclassified to profit or loss as a reclassification adjustment in the same period when the hedged items affect profit or loss. However, if a hedged forecast transaction subsequently results in the recognition of a non-financial asset or non-financial liability, the amount accumulated in other components of equity is accounted for as an adjustment to the initial carrying amount of the asset or liability.

If a hedging instrument expires or is sold, terminated or exercised, or ceases to meet the hedge accounting criteria, the application of hedge accounting is discontinued prospectively. If a forecast transaction is no longer expected to occur, the accumulated gain or loss recognized through other comprehensive income is immediately reclassified to profit or loss.

(c) Fair value hedges

A gain or loss on a hedging instrument is recognized in profit or loss. Changes in the fair value of a hedged item attributable to the hedged risk is recognized in profit or loss after adjusting the carrying amount of the hedged item. If the hedged item is a financial instrument measured at amortized cost, amortization of the cumulative adjustment to the carrying amount of the hedged item begins when the application of hedge accounting is discontinued.

5. Cash and cash equivalents

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

6. Inventories

Inventories are measured at the lower of cost and net realizable value. Costs of inventories comprise all costs of purchase, costs of conversion and other costs incurred in bringing the inventories to their present location and condition, and are mainly determined using the moving-average cost method. Net realizable value is determined by 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.

7. Property, plant and equipment

The Group applies the cost model for measurement of property, plant and equipment. Property, plant and equipment are stated at cost less accumulated depreciation and accumulated impairment losses.

Costs of property, plant and equipment include costs directly attributable to the acquisition of the asset, costs of dismantling and removing the asset and restoring the site on which it is located, and borrowing costs eligible for capitalization.

Property, plant and equipment, except for land and construction in progress, are depreciated mainly using the straight-line method over the estimated useful lives. The estimated useful lives of major items of property, plant and equipment are as follows:

- Buildings and structures: 3-60 years

- Machinery and vehicles: 2-20 years

The depreciation method, useful life and residual value of property, plant and equipment are reviewed at each fiscal year-end, and any changes, if necessary, are accounted for prospectively as changes in accounting estimates.

8. Goodwill and intangible assets

(1) Goodwill

The measurement of goodwill at initial recognition is described in "2. Business combinations." Goodwill is stated at cost less accumulated impairment losses.

Goodwill is not amortized and is tested for impairment annually and whenever there is an indication of impairment.

(2) Intangible assets

The Group applies the cost model for measurement of intangible assets. Intangible assets are stated at cost less accumulated amortization and accumulated impairment losses.

Intangible assets acquired separately are measured at cost at initial recognition and those acquired in a business combination are measured at their fair value at the acquisition date.

Expenditures generated internally at a research phase are recognized as expenses as incurred. Expenditures generated internally at a development phase are recognized as intangible assets only if all of the requirements for capitalization are met.

Intangible assets with finite useful lives are amortized by the straight-line method over their estimated useful lives. The estimated useful lives of major intangible assets are as follows:

- Customer-related intangible assets: 9-21 years
- Technology-based intangible assets: 8-24 years
- Software: Mainly 5 years

The amortization method, useful life and residual value of an intangible asset are reviewed at each fiscal yearend, and any changes, if necessary, are accounted for prospectively as changes in accounting estimates.

Intangible assets with indefinite useful lives and intangible assets not yet available for use are not amortized, and are tested for impairment annually and whenever there is an indication of impairment.

9. Leases

The Group assesses whether a contract is, or contains, a lease based on whether the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

At the commencement date, a lease liability is measured at the present value of the lease payments that are not paid at that date. An incremental borrowing rate is used for a discount rate unless the interest rate implicit in the lease can be readily determined. A right-of-use asset is measured at the amount of the initial measurement of the lease liability, adjusted by initial direct costs and prepaid lease payments, plus an estimated cost of dismantling and removing the asset and restoring the site on which the asset is located.

Right-of-use assets are depreciated mainly over the lease term after the commencement date of the lease. The lease term is determined by adding a period when it is reasonably certain to exercise an option to extend a lease, or not to exercise an option to terminate a lease, to the non-cancellable period of the lease. Lease payments are apportioned between finance costs and repayments of lease liabilities based on the effective interest method.

For leases with a lease term of 12 months or less and leases for which the underlying asset is of low value, the related lease payments are recognized as expenses on a systematic basis over the lease term.

10. Impairment of non-financial assets

At the end of each reporting period, the Group assesses whether there is any indication that non-financial assets, including property, plant and equipment, intangible assets and goodwill, may be impaired. If any such indication exists, the recoverable amount of the asset is estimated. For goodwill, intangible assets with indefinite useful lives and intangible assets not yet available for use, their recoverable amounts are estimated annually and whenever there is any indication of impairment.

The recoverable amount is the higher of the asset's fair value less costs of disposal or its value in use. When the recoverable amount of an individual asset cannot be estimated, the Group estimates the recoverable amount of the cash-generating unit to which the asset belongs. The value in use is determined as the discounted present value of future cash

flows to be derived from continuing use of the asset and from its ultimate disposal. The discount rate used for determining the value in use is a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the asset.

If the recoverable amount of an asset, a cash-generating unit or a group of cash-generating units is less than its carrying amount, an impairment loss is recognized in profit or loss. An impairment loss recognized for a cash-generating unit (group of units) is first allocated to reduce the carrying amount of any goodwill allocated to the cash-generating unit (group of units) and is then allocated to the other assets pro rata on the basis of the carrying amount of each asset.

At the end of each reporting period, the Group assesses whether there is any indication that an impairment loss recognized in prior periods for an asset other than goodwill may no longer exist or may have decreased. If any such indication exists, the recoverable amount of the individual asset or cash-generating unit is estimated. If the estimated recoverable amount exceeds the carrying amount of the asset, impairment losses are reversed to the extent that the carrying amount of the asset does not exceed the lower of its recoverable amount determined and the carrying amount that would have been determined (net of amortization or depreciation) had no impairment loss been recognized for the asset in prior periods. The amount of reversal of impairment losses is recognized in profit or loss.

Impairment losses recognized for goodwill are not reversed.

11. Provisions

Provisions are recognized when the Group has a present legal or constructive obligation as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation.

The amount recognized as a provision is the best estimate of the expenditure required to settle the present obligation at the end of the reporting period. When the effect of the time value of money is material, a provision is measured at the present value of the expenditure expected to be required to settle the obligation. The discount rate used for determining the present value is a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability.

12. Employee benefits

(1) Post-employment benefits

The Group has defined contribution plans and defined benefit plans as retirement benefit plans for employees.

(a) Defined contribution plans

Contributions to defined contribution plans are recognized as expenses when services are rendered by employees.

(b) Defined benefit plans

The present value of defined benefit obligations and current service cost, as well as past service costs are determined using the projected unit credit method. The discount rate is determined based on market yields at the end of the reporting period on high quality corporate bonds for the corresponding period up to the estimated date of future benefit payments.

The net defined benefit liability (asset) is recognized at the present value of defined benefit obligations net of the fair value of plan assets.

Service costs and net interest on the net defined benefit liability (asset) are recognized in profit or loss. Remeasurements of the net defined benefit liability (asset) are recognized in other comprehensive income in the period when they occur and transferred immediately to retained earnings. Past service cost is recognized in profit or loss in the period when they are incurred.

(2) Other employee benefits

Short-term employee benefits are recognized as expenses when the associated services are rendered by employees at undiscounted amounts.

When the Group has a legal or constructive obligation to make payments of bonuses and paid leave expenses and a reliable estimate can be made of the obligation, a liability is recognized for the estimated amount to be paid based on the respective programs.

13. Equity

Common shares are recorded at issue value in share capital and capital surplus.

Treasury shares are valued at cost and deducted from equity. When treasury shares are disposed of, the difference between the carrying amount and the consideration received is recognized as capital surplus.

14. Share-based payments

The Company has adopted a share option plan as an equity-settled share-based remuneration plan. The grant-date fair value of share options is recognized as an expense over the vesting period, and the corresponding amount is recognized as an increase in equity. The fair value of options granted is determined using the Black-Scholes model.

15. Revenue recognition

The Group's revenue is recognized based on the following five-step model:

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

The Group operates Fibers & Textiles, Performance Chemicals, Carbon Fiber Composite Materials, Environment & Engineering, Life Science and other businesses and, with regard to sales of products of these businesses, the Group determines that its performance obligation is satisfied typically when a customer obtains control of the product upon the delivery. Accordingly, revenue is mainly recognized when the product is delivered. For engineering and other service contracts at certain subsidiaries operating the Environment & Engineering business, revenue is recognized over time based on the progress in satisfying the performance obligation because control of a product or service is transferred over time. The progress is measured by a ratio of the actual cost to the total estimated cost.

Revenue is measured at the consideration promised in a contract with a customer, less discounts, rebates, returned products and other items. In addition, contracts do not contain a significant financing component because consideration is normally collected about within one year from the time when the performance obligation is satisfied.

16. Income taxes

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

Current taxes are measured at the amount expected to be paid to or recovered from the taxation authorities, using the tax rates and tax laws that have been enacted or substantively enacted by the end of the reporting period.

Deferred taxes are recognized for temporary differences between the accounting carrying amount and the tax base of assets and liabilities and for the carryforward of unused tax credits and unused tax losses at the end of the reporting period. Deferred tax liabilities are, in principle, recognized for all taxable temporary differences. Deferred tax assets are recognized for deductible temporary differences to the extent that it is probable that taxable profit will be available against which the deductible temporary differences can be utilized, and the recoverability of deferred tax assets is reassessed each period.

Deferred tax assets and liabilities are not recognized for the following temporary differences:

- temporary differences arising from the initial recognition of goodwill;
- temporary differences arising from the initial recognition of assets and liabilities in transactions (excluding business combinations) which affect neither accounting profit nor taxable profit;
- taxable temporary differences associated with investments in subsidiaries and associates, and interests in joint arrangements, to the extent that the timing of the reversal of the temporary difference can be controlled and it is probable that the temporary difference will not reverse in the foreseeable future; and
- deductible temporary differences associated with investments in subsidiaries and associates, and interests in joint arrangements, to the extent that it is not probable that the temporary difference will reverse in the foreseeable future or it is not probable that taxable profit will be available against which the temporary difference can be utilized.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realized or the liability is settled, based on tax rates and tax laws that have been enacted or substantively enacted by the end of the reporting period.

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

The Company and some of its subsidiaries file consolidated tax returns.

17. Earnings per share

Basic earnings per share are calculated by dividing profit or loss attributable to common shareholders of the parent entity by the weighted average number of common shares outstanding, adjusted for treasury shares, during the period. Diluted earnings per share are calculated by adjusting for the effects of all dilutive potential common shares.

Note 4. Significant Accounting Estimates and Judgements

In preparing the consolidated financial statements, management is required to make judgements, estimates and assumptions that affect the application of accounting policies and the amounts of assets, liabilities, income and expenses. These estimates and assumptions are based on management's best judgements, but may differ from actual results.

The estimates and underlying assumptions are reviewed on an ongoing basis. The effects of revisions to accounting estimates are recognized in the period in which the estimates are revised and in future periods.

Accounting judgements, estimates and assumptions that have a significant impact on the amounts recognized in the Group's consolidated financial statements are principally as follows:

1. Impairment of non-financial assets

At the end of each reporting period, the Group assesses whether there is any indication that non-financial assets, including property, plant and equipment, intangible assets and goodwill, may be impaired. If any such indication exists, the recoverable amount of the asset is estimated. For goodwill, intangible assets with indefinite useful lives and intangible assets not yet available for use, their recoverable amounts are estimated annually and whenever there is any indication of impairment.

In determining the recoverable amount, certain assumptions are established for future cash flows, discount rates and other items. These assumptions are determined by management's best estimates and judgements but may be affected by changes in future economic conditions and business plans. If it becomes necessary to review the assumptions, the consolidated financial statements may be materially affected.

The relevant details are described in "Note 11. Property, Plant and Equipment" and "Note 13. Goodwill and Intangible Assets."

2. Recoverability of deferred tax assets

Deferred tax assets are recognized to the extent that it is probable that taxable profit will be available against which the deductible temporary differences can be utilized, and their recoverability is reviewed every period. In determining the recoverability, the amount and timing of taxable profit generated are estimated based on business plans. These assumptions are determined by management's best estimates and judgements but may be affected by changes in future economic conditions and other events. If it becomes necessary to review the assumptions, the consolidated financial statements may be materially affected.

The relevant details are described in "Note 18. Income Taxes."

3. Measurement of defined benefit obligations

The net defined benefit liability (asset) is recognized at the present value of defined benefit obligations net of the fair value of plan assets. Defined benefit obligations are calculated based on actuarial assumptions, which include estimates of discount rates, employee turnover, mortality and future increases in salaries. These actuarial assumptions may be affected by changes in future economic climates or social conditions. If it becomes necessary to review the assumptions, the consolidated financial statements may be materially affected.

The relevant details are described in "Note 22. Employee Benefits."

The Group makes accounting estimates, including valuation of non-financial assets, assuming that the global economy, including Japan, is likely to continue its recovery with the rollout of coronavirus vaccines and progress in economic measures, though there are concerns about the resurgence in infections from variants, supply chain constraints caused by shortage of parts and labor, logistic congestion, and the prolonged situation in Ukraine.

Note 5. New Standards Not Yet Applied

None of the new standards or interpretations that have been established or revised by the date of authorization for issue of the consolidated financial statements have a significant impact on the Group's consolidated financial statements.

Note 6. Segment Information

1. Overview of reportable segments

The reportable segments of the Group are the components of the Group for which discrete financial information is available and which are subject to periodic review by the Board of Directors and other relevant bodies to determine the allocation of management resources and evaluate business performance.

The Company identifies five reportable segments based on the product's nature and market similarity: "Fibers & Textiles," "Performance Chemicals," "Carbon Fiber Composite Materials," "Environment & Engineering" and "Life Science." The main products belonging to each reportable segment are as follows:

Reportable segment	Main products
Fibers & Textiles	Filament yarns, staple fibers, spun yarns, woven and knitted fabrics of nylon, polyester, acrylic and others; nonwoven fabrics; nonwoven material created using ultra-fine fibers in an "Island in the Sea" configuration; apparel products
Performance Chemicals	Nylon, ABS, PBT, PPS and other resins and molded products; polyolefin foam; polyester, polyethylene, polypropylene and other films and processed film products; raw materials for synthetic fibers and other plastics; fine chemicals; electronic and information materials; and graphic materials
Carbon Fiber Composite Materials	Carbon fibers, carbon fiber composite materials and their molded products
Environment & Engineering	Comprehensive engineering; condominiums; industrial equipment and machinery; IT-related equipment; water treatment membranes and related equipment; materials for housing, building and civil engineering applications
Life Science	Pharmaceuticals, medical devices, etc.

The accounting policies for each reportable segment are the same as described in "Note 3. Significant Accounting Policies." Intersegment revenue is determined based mainly on market prices.

2. Information by reportable segment

Millions of yen

					2021				ivillions of year
_		Re	portable segme	ents					
	Fibers & Textiles	Performance Chemicals	Carbon Fiber Composite Materials	Environment & Engineering	Life Science	Other *1	Total	Reconcilia- tions *2, 3	Consolidated total
Revenue									
Revenue from external customers	719,239	720,418	182,884	193,524	52,965	14,570	1,883,600	-	1,883,600
Intersegment revenue	1,045	11,185	712	56,724	1	24,891	94,558	(94,558)	-
Total	720,284	731,603	183,596	250,248	52,966	39,461	1,978,158	(94,558)	1,883,600
Core operating income (loss)	36,565	66,963	(7,476)	14,532	1,295	2,939	114,818	(24,553)	90,265
Total assets	808,565	1,075,600	564,046	297,697	72,943	86,689	2,905,540	(56,701)	2,848,839
(Other items)									
Depreciation and amortization	30,729	44,982	28,765	5,871	3,328	2,401	116,076	(257)	115,819
Impairment losses	2,903	864	25,100	-	-	-	28,867	-	28,867
Capital expenditures *4	23,240	74,905	19,899	11,104	2,787	2,434	134,369	(1,169)	133,200

- *1 "Other" represents service-related businesses such as analysis, physical evaluation and research.
- *2 "Reconciliations" of core operating income of ¥(24,553) million include intersegment eliminations of ¥310 million and corporate expenses of ¥(24,863) million. The corporate expenses consist of the headquarters' research expenses that are not allocated to each reportable segment.
- *3 "Reconciliations" of total assets of ¥(56,701) million include intersegment eliminations of ¥(77,905) million and corporate assets of ¥21,204 million. The corporate assets consist of the headquarters' research assets that are not allocated to each reportable segment.
- *4 Capital expenditures do not include the increase in assets resulting from business combinations.

					2022				
		Rej	portable segme	ents					
	Fibers & Textiles	Performance Chemicals	Carbon Fiber Composite Materials	Environment & Engineering	Life Science	Other *1	Total	Reconcilia- tions *2, 3	Consolidated total
Revenue									
Revenue from external customers	836,182	910,000	215,215	199,285	51,954	15,887	2,228,523	-	2,228,523
Intersegment revenue	1,263	18,557	642	42,612	-	25,962	89,036	(89,036)	-
Total	837,445	928,557	215,857	241,897	51,954	41,849	2,317,559	(89,036)	2,228,523
Core operating income	42,191	90,961	1,581	16,549	1,373	3,018	155,673	(23,610)	132,063
Total assets	886,645	1,153,120	601,914	299,077	71,422	87,650	3,099,828	(55,947)	3,043,881
(Other items)									
Depreciation and amortization	31,111	47,819	29,204	6,503	3,506	2,467	120,610	(241)	120,369
Impairment losses	3,753	23,101	289	134	167	-	27,444	-	27,444
Capital expenditures *4	23,311	47,211	16,008	10,177	3,001	2,667	102,375	(1,439)	100,936

- *1 "Other" represents service-related businesses such as analysis, physical evaluation and research.
- *2 "Reconciliations" of core operating income of ¥(23,610) million include intersegment eliminations of ¥596 million and corporate expenses of ¥(24,206) million. The corporate expenses consist of the headquarters' research expenses that are not allocated to each reportable segment.
- *3 "Reconciliations" of total assets of ¥(55,947) million include intersegment eliminations of ¥(77,928) million and corporate assets of ¥21,981 million. The corporate assets consist of the headquarters' research assets that are not allocated to each reportable segment.
- *4 Capital expenditures do not include the increase in assets resulting from business combinations.

Core operating income is calculated by excluding income and expenses due to non-recurring factors from operating income. Reconciliation of core operating income to operating income is as follows:

Millions of yen

	2021	2022
Core operating income	90,265	132,063
Gain on sale or disposal of fixed assets	288	1,031
Loss on sale or disposal of fixed assets	(5,807)	(5,085)
Impairment losses	(28,867)	(27,444)
Operating income	55,879	100,565

Reconciliation of operating income to profit before tax is presented in the consolidated statement of profit or loss.

3. Information about geographical areas

The breakdown of revenue from external customers and non-current assets by geographical area is as follows:

(1) Revenue from external customers

Millions of yen

	2021	2022
Japan	829,191	901,039
Asia		
China	367,856	446,647
Other	373,514	477,648
North America, Europe and other	313,039	403,189
Total	1,883,600	2,228,523

^{*} Revenue is attributed to each area based on the location of customers.

(2) Non-current assets (excluding financial instruments, deferred tax assets and retirement benefit asset)

Millions of yen

		111111111111111111111111111111111111111
	March 31, 2021	March 31, 2022
Japan	355,817	339,357
Asia		
Republic of Korea	234,735	212,738
Other	183,300	199,698
North America, Europe and other		
U.S.A.	245,105	263,467
Europe and other	208,067	206,271
Total	1,227,024	1,221,531

Note 7. Cash and Cash Equivalents

The breakdown of cash and cash equivalents is as follows:

	March 31, 2021	March 31, 2022
Cash on hand and demand deposits	177,697	162,535
Time deposits and other short-term investments	58,657	66,766
Cash and cash equivalents as presented in the consolidated statement of financial position	236,354	229,301
Cash and cash equivalents included in assets held for sale	-	1,054
Cash and cash equivalents as presented in the consolidated statement of cash flows	236,354	230,355

Note 8. Trade and Other Receivables

The breakdown of trade and other receivables is as follows:

Millions of yen

		· · · / ·
	March 31, 2021	March 31, 2022
Trade receivables	489,070	549,064
Contract assets	24,195	18,087
Other receivables	11,264	12,715
Allowance for doubtful accounts	(2,270)	(2,999)
Total	522,259	576,867

^{*} Trade and other receivables, excluding contract assets, are classified as financial assets measured at amortized cost.

Note 9. Inventories

The breakdown of inventories is as follows:

Millions of ven

	March 31, 2021	March 31, 2022
Merchandise and finished goods	195,221	253,150
Work in process	76,093	92,614
Raw materials and supplies	97,796	123,552
Total	369.110	469.316

^{*} The amounts of write-down of inventories recognized as expenses for the years ended March 31, 2021 and 2022 were ¥2,567 million and ¥3,363 million, respectively.

Note 10. Assets Held for Sale

The breakdown of assets held for sale and liabilities directly associated with assets held for sale is as follows:

Millions of yen

	March 31, 2021	March 31, 2022
Assets held for sale		
Cash and cash equivalents	-	1,054
Property, plant and equipment	-	30,230
Other	-	433
Total	-	31,717
Liabilities directly associated with assets held for sale		
Bonds and borrowings	-	2,734
Other	-	208
Total	-	2,942

On October 27, 2021, in the Performance Chemicals segment, the Company concluded an investment agreement with LG Chem, Ltd. ("LG Chem"). Under this arrangement, LG Chem would invest US\$375 million in Toray Industries Hungary Kft. ("THU"), a 100% subsidiary of the Company engaged in manufacture and sales of battery separator film in Hungary, which would then establish a joint venture, in which the Company and LG Chem each will hold a 50% interest. Accordingly, as it became highly probable that the Company would lose control of THU, the assets and liabilities of THU have been classified as held for sale as of March 31, 2022. The cumulative exchange differences on translation relating to THU amounted to ¥3,288 million at March 31, 2022.

The joint venture was established on June 16, 2022, and, as a result, the Group expects to record a gain of approximately ¥19.0 billion (net of tax) for the loss of control of THU in the year ending March 31, 2023.

Note 11. Property, Plant and Equipment

1. Changes in property, plant and equipment

Changes in carrying amount, acquisition cost, and accumulated depreciation and accumulated impairment losses are as follows:

(1) Carrying amount

Millions of yen

					Willions of yell	
	Land	Buildings and structures	Machinery and vehicles	Construction in progress	Other	Total
At April 1, 2020	66,113	288,833	452,649	136,248	25,353	969,196
Additions	39	18,784	92,159	(4,782)	7,528	113,728
Depreciation	-	(15,038)	(72,627)	-	(7,503)	(95,168)
Impairment losses	-	(10,218)	(17,581)	(366)	(589)	(28,754)
Disposal	(190)	(450)	(1,489)	(553)	(179)	(2,861)
Exchange differences on translation	2,319	10,351	23,144	5,009	780	41,603
Other	(446)	(255)	696	363	256	614
At March 31, 2021	67,835	292,007	476,951	135,919	25,646	998,358
Additions	16	27,158	97,013	(41,924)	8,526	90,789
Depreciation	-	(15,939)	(75,978)	-	(7,525)	(99,442)
Impairment losses	(668)	(4,833)	(11,321)	(249)	(496)	(17,567)
Disposal	(562)	(361)	(2,453)	(30,192)	(307)	(33,875)
Exchange differences on translation	1,595	13,950	28,340	5,715	1,197	50,797
Other	382	(416)	805	707	195	1,673
At March 31, 2022	68,598	311,566	513,357	69,976	27,236	990,733

^{*1} Additions include the transfer from construction in progress to other accounts of property, plant and equipment.

(2) Acquisition cost

Millions of yen

	Land	Buildings and structures	Machinery and vehicles	Construction in progress	Other	Total
At April 1, 2020	66,373	661,816	2,051,461	139,266	113,339	3,032,255
At March 31, 2021	67,883	693,912	2,181,505	139,257	119,282	3,201,839
At March 31, 2022	69,314	743,560	2,349,016	73,111	129,161	3,364,162

(3) Accumulated depreciation and accumulated impairment losses

	Land	Buildings and structures	Machinery and vehicles	Construction in progress	Other	Total
At April 1, 2020	260	372,983	1,598,812	3,018	87,986	2,063,059
At March 31, 2021	48	401,905	1,704,554	3,338	93,636	2,203,481
At March 31, 2022	716	431,994	1,835,659	3,135	101,925	2,373,429

^{*2} Depreciation is included in "Cost of sales" and "Selling, general and administrative expenses" in the consolidated statement of profit or loss.

^{*3} Disposal includes the transfer to assets held for sale.

Note 12. Leases

The Group leases land, buildings, production facilities and other assets. Some of the lease contracts contain extension options and termination options. Amounts recognized in profit or loss and cash outflows related to leases and the breakdown of the carrying amount of right-of-use assets are as follows:

1. Amounts recognized in profit or loss and cash outflows related to leases

Millions of yen

		TVIIITIONS OF YEN
	2021	2022
Depreciation charge for right-of-use assets		
Land	455	488
Buildings and structures	8,579	8,675
Machinery and vehicles	2,266	2,184
Other	609	495
Total	11,909	11,842
Interest expense on lease liabilities	470	503
Expense relating to short-term leases	1,362	1,291
Expense relating to leases of low-value assets	881	849
Total cash outflow for leases	14,328	14,281

2. Breakdown of carrying amount of right-of-use assets

Millions of yen

	March 31, 2021	March 31, 2022
Land	10,847	11,634
Buildings and structures	27,602	26,004
Machinery and vehicles	10,694	9,092
Other	1,338	1,023
Total	50,481	47,753

Additions to right-of-use assets for the years ended March 31, 2021 and 2022 were ¥14,464 million and ¥6,415 million, respectively.

The maturity analysis of lease liabilities is presented in "Note 33. Financial Instruments."

Note 13. Goodwill and Intangible Assets

1. Changes in goodwill and intangible assets

Changes in carrying amount, acquisition cost, and accumulated amortization and accumulated impairment losses are as follows:

(1) Carrying amount

Millions of yen

					willions of yell	
	Goodwill	Intangible assets				
		Customer- related intangible assets	Technology- based intangible assets	Other	Total	
At April 1, 2020	83,406	39,116	24,905	15,481	79,502	
Additions	-	-	-	4,854	4,854	
Amortization	-	(2,246)	(1,320)	(4,926)	(8,492)	
Exchange differences on translation	2,159	655	393	408	1,456	
Other	-	-	-	985	985	
At March 31, 2021	85,565	37,525	23,978	16,802	78,305	
Additions	1,172	1,069	-	3,707	4,776	
Amortization	-	(2,452)	(1,353)	(5,009)	(8,814)	
Impairment losses	(8,393)	-	-	(780)	(780)	
Exchange differences on translation	7,718	3,679	2,405	599	6,683	
Other	2,060	-	-	543	543	
At March 31, 2022	88,122	39,821	25,030	15,862	80,713	

^{*1} There were no significant internally generated intangible assets at March 31, 2021 and 2022.

(2) Acquisition cost

Millions of yen

					willions of yen
	Goodwill	Intangible assets			
		Customer- related intangible assets	Technology- based intangible assets	Other	Total
At April 1, 2020	83,406	49,630	33,508	57,994	141,132
At March 31, 2021	85,565	50,879	34,609	65,720	151,208
At March 31, 2022	96,897	56,945	30,457	71,579	158,981

(3) Accumulated amortization and accumulated impairment losses

					Millions of yen
	Goodwill	Intangible assets			
		Customer- related intangible assets	Technology- based intangible assets	Other	Total
At April 1, 2020	-	10,514	8,603	42,513	61,630
At March 31, 2021	-	13,354	10,631	48,918	72,903
At March 31, 2022	8,775	17,124	5,427	55,717	78,268

^{*2} Amortization of intangible assets is included in "Cost of sales" and "Selling, general and administrative expenses" in the consolidated statement of profit or loss.

^{*3} Research and development expenses recognized as expenses for the years ended March 31, 2021 and 2022 were ¥62,818 million and ¥61,993 million, respectively.

2. Material intangible assets

The material intangible assets recorded in the consolidated statement of financial position are the customer-related intangible assets and technology-based intangible assets of TenCate Advanced Composites Holding B.V. (currently Toray TCAC Holding B.V.), which were acquired in July 2018. The carrying amounts of these assets are as follows:

Millions of yen

	March 31, 2021	March 31, 2022
Customer-related intangible assets	33,932	35,484
Technology-based intangible assets	22,706	23,934

^{*} The remaining useful life at March 31, 2022 was 18 to 21 years.

3. Impairment tests for goodwill

Cash-generating units or groups of cash-generating units to which goodwill has been allocated are tested for impairment annually and whenever there is an indication of impairment. The carrying amounts of material goodwill are as follows:

Millions of yen

Reportable segment	Cash-generating unit or group of cash-generating units	March 31, 2021	March 31, 2022
Carbon Fiber Composite Materials	Toray TCAC Holding B.V.	60,309	66,671
Carbon Fiber Composite Materials	Zoltek Companies, Inc.	11,580	12,802

The recoverable amount of each cash-generating unit was measured at value in use. The value in use was determined based on the business plan for the next five years approved by management combined with a terminal value, reflecting past experience and external information. The business plan is primarily affected by changes in sales volumes and sales prices. The terminal value was calculated using the growth rate based on the expected inflation rate of the country to which the cash-generating unit belonged (2.2 to 2.3% at March 31, 2021 and 2022). The discount rate used in the measurement of value in use was 7.6 to 8.3% at March 31, 2021 and 2022.

As the recoverable amount is sufficiently higher than the carrying amount, it is considered unlikely that a significant impairment loss would be incurred even if the key assumptions used in the impairment test were to change within a reasonably foreseeable range.

An impairment loss for goodwill was recognized in the year ended March 31, 2022 relating to the Performance Chemicals segment. The details are described in "Note 14. Impairment Losses."

Note 14. Impairment Losses

The Group generally identifies cash-generating units on the basis of management accounting segmentation.

The major assets for which impairment losses were recognized for the years ended March 31, 2021 and 2022 are as follows. The impairment losses are recorded in "Other expenses" in the consolidated statement of profit or loss.

		2021		
Reportable segment	Location	Use	Class of asset	Impairment losses (Millions of yen)
Carbon Fiber		Carbon fiber	Buildings and structures	9,844
	Washington,	composite materials	Machinery and vehicles	14,275
	Composite U.S.A. and other Materials composite materials production facilities		Construction in progress	313
Materials		Other	536	
	Donang	Fiber production	Buildings and structures	225
Fibers & Textiles	Penang, Malaysia	Fiber production facilities	Machinery and vehicles	1,589
	ivididySid		Other	21

The carrying amounts of, mainly, operating assets with declining profitability were reduced to their recoverable amounts. The recoverable amount was measured at value in use. The value in use was calculated by discounting the future cash flows at discount rates of 7.8 to 9.0%.

The carrying amount of the carbon fiber composite materials production facilities in Washington, U.S.A. and other was reduced to the recoverable amount due to a decline in profitability caused by sluggish demand for aircraft, and the recoverable amount was measured at value in use of ¥53,192 million. The value in use was calculated by discounting the future cash flows at a discount rate of 7.8%. The future cash flows were estimated based on the business plan for the next five years approved by management, reflecting past experience and external information, and for the years after the five years, estimated using the growth rate based on the expected inflation rate of the country to which the cash-generating unit belongs. The business plan is primarily affected by changes in sales volumes and sales prices.

		2022		
Reportable segment	Location	Use	Class of asset	Impairment losses (Millions of yen)
			Land	668
Performance	Nasushiobara, Tochigi,	Battery separator films	Buildings and structures	2,516
Chemicals	, ,,	business	Machinery and vehicles	1,410
Chemicais	Japan	busiliess	Goodwill	893
			Other	1,631
			Buildings and structures	1,889
Performance	Gyeongsangbuk-do,	Battery separator films	Machinery and vehicles	5,882
Chemicals	Republic of Korea	business	Goodwill	7,500
			Other	187

The carrying amounts of production facilities, goodwill and other assets relating to the battery separator films business in Nasushiobara, Tochigi, Japan and Gyeongsangbuk-do, Republic of Korea were reduced to the recoverable amounts due to declining profitability mainly in the automotive applications resulting from intensifying market competition.

The recoverable amount of the assets in Japan was measured at fair value less costs of disposal of ¥801 million based on an appraisal value using the market approach. The fair value less costs of disposal was categorized within Level 3 of the fair value hierarchy.

The recoverable amount of the assets in Republic of Korea was measured at value in use of ¥53,822 million. The value in use was calculated by discounting the future cash flows at a discount rate of 8.1%. The future cash flows were estimated based on the business plan for the next five years approved by management, reflecting past experience and external information, and for the years after the five years, estimated using the growth rate based on the expected inflation rate of the country to which the cash-generating unit belongs. The business plan is primarily affected by changes in sales volumes and sales prices.

Note 15. Investments Accounted for Using Equity Method

The aggregate information about the carrying amount of investments in joint ventures and associates, and the share of profit, other comprehensive income and comprehensive income is as follows:

Millions of yen

	March 31, 2021	March 31, 2022
Carrying amount		
Joint ventures	32,564	34,078
Associates	141,578	149,376

Millions of yen

	2021	2022
Profit		
Joint ventures	5,123	4,749
Associates	7,689	13,836
Other comprehensive income		
Joint ventures	(15)	46
Associates	680	188
Comprehensive income		
Joint ventures	5,108	4,795
Associates	8,369	14,024

^{*} In addition to the above, gains (losses) on sale of investments accounted for using equity method of ¥757 million was recognized for the year ended March 31, 2022, and is included in "Share of profit of investments accounted for using equity method" in the consolidated statement of profit or loss.

Note 16. Other Financial Assets

1. Breakdown

The breakdown of other financial assets is as follows:

	March 31, 2021	March 31, 2022
Financial assets measured at amortized cost		
Time deposits and other short-term investments	3,390	3,572
Leasehold and guarantee deposits	9,311	10,208
Other	10,689	10,981
Financial assets measured at fair value through profit or loss		
Derivative assets	7,363	16,054
Other	411	300
Financial assets measured at fair value through other comprehensive		
income		
Shares and investments in capital	192,313	181,701
Total	223,477	222,816
Current assets	6,136	7,826
Non-current assets	217,341	214,990
Total	223,477	222,816

2. Equity instruments measured at fair value through other comprehensive income

MS&AD Insurance Group Holdings, Inc.

The Group designates equity securities held mainly for the purpose of strengthening business relationships, facilitating business alliances, and enhancing joint research and technological development as equity instruments measured at fair value through other comprehensive income.

The fair values of major equity instruments measured at fair value through other comprehensive income are as follows:

Millions of yen March 31, 2021 Fair value Issue FUJIFILM Holdings Corp. 14,555 Daiichi Sankyo Co., Ltd. 13,544 Mitsui Fudosan Co., Ltd. 12,282 Toyota Industries Corp. 11,267 Kaken Pharmaceutical Co., Ltd. 9,948 Daikin Industries, Ltd. 8,120 Mitsui & Co., Ltd. 7,217 Sumitomo Mitsui Financial Group, Inc. 6,052 TBS Holdings, Inc. 5,038

Millions of yen

4,802

	March 31, 2022
lssue	Fair value
FUJIFILM Holdings Corp.	16,617
Mitsui Fudosan Co., Ltd.	12,802
Mitsui & Co., Ltd.	10,433
Toyota Industries Corp.	9,679
Kaken Pharmaceutical Co., Ltd.	8,927
Daikin Industries, Ltd.	8,153
Daiichi Sankyo Co., Ltd.	8,039
Komatsu Matere Co., Ltd.	6,176
Sumitomo Mitsui Financial Group, Inc.	5,901
MS&AD Insurance Group Holdings, Inc.	5,273

3. Derecognition of equity instruments measured at fair value through other comprehensive income

The Group sells (derecognizes) equity instruments measured at fair value through other comprehensive income mainly as a result of streamlining its assets and reviewing its business relationships. The fair value at the time of sale and the cumulative gain or loss (before tax) on the sale are as follows. The cumulative gain or loss (net of tax) recognized as other components of equity was reclassified to retained earnings upon sale.

	2021	2022
Fair value at time of sale	20,667	33,823
Cumulative gain (loss)	5,116	7,566

Note 17. Other Assets

The breakdown of other current assets and other non-current assets is as follows:

Millions of yen

	March 31, 2021	March 31, 2022
Prepayments	18,360	27,503
Value-added taxes receivable	18,560	20,881
Investment property	11,943	11,629
Other	12,632	12,406
Total	61,495	72,419
Current assets	47,180	58,209
Non-current assets	14,315	14,210
Total	61,495	72,419

Note 18. Income Taxes

1. Deferred tax assets and deferred tax liabilities

The breakdown of and changes in deferred tax assets and deferred tax liabilities by major cause are as follows:

					willions of yen
			2021		
	At beginning of period	Recognized in profit or loss	Recognized in other comprehensive income	Other	At end of period
Deferred tax assets					
Property, plant and equipment and intangible assets	12,170	(98)	-	182	12,254
Employee benefits	46,158	(110)	(400)	133	45,781
Lease liabilities	9,808	(35)	-	143	9,916
Other	32,334	2,147	(4,007)	519	30,993
Total	100,470	1,904	(4,407)	977	98,944
Deferred tax liabilities					
Property, plant and equipment and intangible assets	(44,855)	5,823	-	(981)	(40,013)
Right-of-use assets	(9,866)	(44)	-	(143)	(10,053)
Investments in subsidiaries, associates and joint arrangements	(20,452)	(2,752)	(1,026)	(2)	(24,232)
Financial assets measured at fair value through other comprehensive income	(29,923)	-	(8,658)	(3)	(38,584)
Other	(10,653)	282	(2,805)	12	(13,164)
Total	(115,749)	3,309	(12,489)	(1,117)	(126,046)

Millions of ven

					Millions of yen
			2022		
	At beginning of period	Recognized in profit or loss	Recognized in other comprehensive income	Other	At end of period
Deferred tax assets					
Property, plant and equipment and intangible assets	12,254	8,660	-	544	21,458
Employee benefits	45,781	(318)	(267)	982	46,178
Lease liabilities	9,916	(1,137)	-	288	9,067
Other	30,993	2,766	1,259	1,284	36,302
Total	98,944	9,971	992	3,098	113,005
Deferred tax liabilities					
Property, plant and equipment and intangible assets	(40,013)	(2,372)	-	(3,731)	(46,116)
Right-of-use assets	(10,053)	1,229	-	(291)	(9,115)
Investments in subsidiaries, associates and joint arrangements	(24,232)	(3,396)	(1,107)	(17)	(28,752)
Financial assets measured at fair value through other comprehensive income	(38,584)	-	9,128	(6,701)	(36,157)
Other	(13,164)	(826)	(5,163)	5,907	(13,246)
Total	(126,046)	(5,365)	2,858	(4,833)	(133,386)

2. Deductible temporary differences, unused tax losses and unused tax credits for which no deferred tax asset is recognized

The amounts (in income tax terms) of deductible temporary differences, unused tax losses and unused tax credits for which no deferred tax asset is recognized are as follows:

Millions of yen

March 31, 2021

Deductible temporary differences *1

Unused tax losses and unused tax credits *2

March 31, 2022

13,807

14,790

24,909

*2 The amounts by expiry date are as follows:

Millions of yen

	March 31, 2021	March 31, 2022
1 year or less	478	502
Over 1 year to 5 years	3,189	4,667
Over 5 years	16,716	19,740
Total	20,383	24,909

3. Taxable temporary differences for which deferred tax liabilities have not been recognized

The aggregate amount (in taxable income terms) of taxable temporary differences associated with investments in subsidiaries, associates and joint arrangements for which deferred tax liabilities had not been recognized was ¥41,883 million and ¥73,344 million at March 31, 2021 and 2022, respectively. Deferred tax liabilities are not recognized for these temporary differences because the Group is able to control the timing of the reversal of the temporary differences and it is probable that the temporary differences will not reverse in the foreseeable future.

^{*1} Deductible temporary differences related to investments in subsidiaries, associates and joint arrangements are not included. The aggregate amount (in taxable income terms) of deductible temporary differences associated with investments in subsidiaries, associates and joint arrangements for which no deferred tax asset was recognized were ¥125,673 million and ¥121,081 million at March 31, 2021 and 2022, respectively.

4. Breakdown of income tax expense

The breakdown of income tax expense is as follows:

Millions of yen

	March 31, 2021	March 31, 2022
Current tax expense	23,440	31,312
Deferred tax expense	(5,213)	(4,606)
Total	18,227	26,706

5. Reconciliation of effective tax rate

Reconciliation between the statutory effective tax rate and the actual average effective tax rate is as follows:

%

	March 31, 2021	March 31, 2022
Statutory effective tax rate	30.6	30.6
Share of profit (loss) of investments accounted for using equity method	(6.0)	(4.7)
Tax rate differences with foreign subsidiaries	(3.6)	(4.0)
Changes in unrecognized deferred tax assets	6.2	2.3
Other	0.6	(2.1)
Actual average effective tax rate	27.8	22.2

Note 19. Trade and Other Payables

The breakdown of trade and other payables is as follows:

	March 31, 2021	March 31, 2022
Trade payables	209,343	249,792
Other payables and accrued expenses	73,469	77,662
Total	282,812	327,454

^{*} Trade and other payables are classified as financial liabilities measured at amortized cost.

Note 20. Bonds and Borrowings

1. Breakdown

The breakdown of bonds and borrowings is as follows:

Millions of yen

	March 31, 2021	March 31, 2022	Average interest rate (%) *2	Maturity
Short-term borrowings	143,135	152,698	0.44	-
Commercial papers	30,000	-	-	-
Long-term borrowings	469,993	505,397	1.03	2022 - 2036
Bonds payable *3	290,158	239,946	-	-
Total	933,286	898,041		
Current liabilities	278,678	279,404		
Non-current liabilities	654,608	618,637		
Total	933,286	898,041		

^{*1} Bonds and borrowings are classified as financial liabilities measured at amortized cost.

Millions of ven

						IVII	illons of yen
Issuer	Issue	Issue date	March 31, 2021	March 31, 2022	Interest rate (%)	Collateral	Maturity
The Company	28th unsecured straight bonds	July 20, 2012	20,231	20,054	0.925	None	July 20, 2022
The Company	29th unsecured straight bonds	July 17, 2013	20,578	20,326	1.012	None	July 14, 2023
The Company	30th unsecured straight bonds	July 19, 2017	59,849	59,873	0.375	None	July 16, 2027
The Company	31st unsecured straight bonds	July 19, 2017	39,932	39,953	0.250	None	July 19, 2024
The Company	32nd unsecured straight bonds	July 18, 2018	39,912	39,933	0.240	None	July 18, 2025
The Company	33rd unsecured straight bonds	July 18, 2018	39,881	39,897	0.380	None	July 18, 2028
The Company	34th unsecured straight bonds	July 18, 2018	19,906	19,912	0.830	None	July 16, 2038
The Company	Zero coupon convertible bonds due 2021	June 9, 2014	49,869	-	-	-	-
	Total		290,158	239,946			

2. Assets pledged as collateral and liabilities with collateral

Assets pledged as collateral are as follows:

Millions of yen

	March 31, 2021	March 31, 2022
Property, plant and equipment	183	111
Other financial assets	3,718	2,955
Total	3,901	3,066

Liabilities with collateral are as follows:

	March 31, 2021	March 31, 2022
Trade and other payables	5,345	6,192
Bonds and borrowings	1,279	1,019
Total	6,624	7,211

^{*2} The average interest rate represents the weighted average interest rate on the balance at March 31, 2022.

^{*3} The schedule of bonds payable is as follows:

Note 21. Other Financial Liabilities

The breakdown of other financial liabilities is as follows:

Millions of yen

	March 31, 2021	March 31, 2022
Financial liabilities measured at amortized cost		
Deposits received	9,571	8,612
Other	5,197	5,068
Financial liabilities measured at fair value through profit or loss		
Derivative liabilities	4,803	3,429
Other	-	871
Total	19,571	17,980
Current liabilities	12,872	12,815
Non-current liabilities	6,699	5,165
Total	19,571	17,980

Note 22. Employee Benefits

1. Post-employment benefits

The Company and some of its subsidiaries have defined benefit corporate pension plans, lump-sum retirement benefit plans and defined contribution pension plans.

The Company's defined benefit corporate pension plan is managed by a corporate pension fund (the "Fund"), which is legally separated from the Company in accordance with laws and regulations. The directors of the Fund and the pension fund trustee are required by laws and regulations to faithfully perform their duties for the Fund, and are responsible for managing the plan assets based on the prescribed policies. The amount of contributions to the defined benefit plan is reviewed regularly through financial recalculations to ensure that the pension plan maintains financial balance into the future. With respect to the investment of plan assets in the Fund, it seeks to secure the required total return over the long term with the aim of ensuring the payment of pension benefits and lump-sum benefits to the participants into the future. In addition, the Fund gives full consideration to the medium- to long-term trends in the ratio of income, including contributions, to expenditure, including benefit payments, as well as the impact of uncertainty in the plan assets on the financial balance of the pension plan and the degree of acceptable uncertainty in the rate of return on the plan assets.

(1) Defined benefit plans

(a) Amounts recognized in the consolidated statement of financial position

The relationship of the net defined benefit liability (asset) recognized in the consolidated statement of financial position with the defined benefit obligations and plan assets is as follows:

	March 31, 2021	March 31, 2022
Present value of defined benefit obligations	182,154	177,293
Fair value of plan assets	(116,181)	(107,296)
Net defined benefit liability (asset)	65,973	69,997
Amounts on the consolidated statement of financial position		
Retirement benefit liability	100,852	98,381
Retirement benefit asset	(34,879)	(28,384)
Net defined benefit liability (asset)	65,973	69,997

(b) Reconciliation of present value of defined benefit obligations Changes in the present value of defined benefit obligations are as follows:

Millions of yen

	2021	2022
At beginning of period	184,417	182,154
Current service cost	7,131	6,912
Interest expense	1,382	1,447
Remeasurements		
Actuarial gains and losses arising from changes in demographic assumptions	-	222
Actuarial gains and losses arising from changes in financial assumptions	1	(2,544)
Actuarial gains and losses arising from experience adjustments	465	(400)
Benefits paid	(12,771)	(12,641)
Other	1,529	2,143
At end of period	182,154	177,293

^{*} The weighted average durations of the defined benefit obligations at March 31, 2021 and 2022 were 8.5 years and 8.1 years, respectively.

(c) Reconciliation of fair value of plan assets Changes in the fair value of plan assets are as follows:

Millions of yen

	2021	2022
At beginning of period	98,244	116,181
Interest income	691	936
Remeasurements		
Return on plan assets	15,253	10,329
Contributions by employer	7,296	6,824
Benefits paid	(6,907)	(6,646)
Return to employer	-	(22,388)
Other	1,604	2,060
At end of period	116,181	107,296

^{*} The amount of expected contributions to the defined benefit plans for the year ending March 31, 2023 is ¥6,466 million.

(d) Breakdown by type of fair value of plan assets The breakdown by type of the fair value of plan assets is as follows:

					IVII	illolls of yell
	N	March 31, 2021			March 31, 2022	
		Quoted market prices in active markets		Quoted market prices in active markets		Total
	Available	Not available	Total -	Available	Not available	Total
Cash and cash equivalents	15,603	-	15,603	15,755	-	15,755
Equity securities (mainly Japanese equity securities)	53,330	-	53,330	40,797	-	40,797
Debt securities (mainly Japanese debt securities)	15,926	-	15,926	17,644	-	17,644
General accounts of life insurance companies	-	31,026	31,026	-	32,702	32,702
Other	195	101	296	296	102	398
Total	85,054	31,127	116,181	74,492	32,804	107,296

(e) Significant actuarial assumptions

The significant assumptions used in the actuarial calculations are as follows:

	March 31, 2021	March 31, 2022
Discount rate	Mainly 0.5%	Mainly 0.6%

(f) Sensitivity analysis

The effect of changes in discount rates, which are the significant actuarial assumptions, on the present value of defined benefit obligations is as follows. This sensitivity analysis assumes that all actuarial assumptions other than those subject to the analysis remain constant.

Millions of yen

		March 31, 2021	March 31, 2022
Discount rate	Increase by 0.5%	(7,075)	(6,492)
	Decrease by 0.5%	5,860	5,858

(2) Defined contribution plans

The amounts of expenses for the defined contribution plans recognized for the years ended March 31, 2021 and 2022 were ¥20,763 million and ¥21,604 million, respectively.

2. Employee benefit expenses

Employee benefit expenses for the years ended March 31, 2021 and 2022 totaled ¥285,945 million and ¥304,353 million, respectively, and are included in "Cost of sales," "Selling, general and administrative expenses" and "Other expenses" in the consolidated statement of profit or loss.

Note 23. Other Liabilities

The breakdown of other current liabilities and other non-current liabilities is as follows:

Millions of yen

		/ -
	March 31, 2021	March 31, 2022
Short-term employee benefits	50,901	53,921
Contract liabilities	17,189	22,257
Value-added taxes payable	9,874	8,732
Other	17,966	18,370
Total	95,930	103,280
Current liabilities	84,425	91,975
Non-current liabilities	11,505	11,305
Total	95,930	103,280

Note 24. Share Capital and Other Equity Items

1. Share capital

Changes in the number of authorized shares and the number of issued shares are as follows:

Thousands of shares

	2021	2022
Number of authorized shares	4,000,000	4,000,000
Number of issued shares		
At beginning of period	1,631,481	1,631,481
Changes during period	-	-
At end of period	1,631,481	1,631,481

^{*} All shares the Company is authorized to issue are common shares that have no par value. All issued shares are fully paid up.

2. Capital surplus and retained earnings

(1) Capital surplus

Capital surplus consists of amounts arising from equity transactions that are not included in share capital. The Companies Act of Japan stipulates that at least one-half of the amount paid or delivered for the issuance of shares shall be incorporated into share capital, and the remainder shall be recorded as legal capital reserve included in capital surplus. In addition, the amount of share acquisition rights issued under the Company's share option plan and the amount classified as an equity element of bonds with share acquisition rights at the time of issuance are recorded in capital surplus.

(2) Retained earnings

Retained earnings consist of items recognized in profit or loss and items reclassified from other comprehensive income in the current year and prior years. The Company's distributable retained earnings under the Companies Act is calculated based on the surpluses in the Company's accounting books prepared in accordance with generally accepted accounting principles in Japan. Accordingly, adjustments to the consolidated financial statements in accordance with IFRS do not affect the calculation of the distributable amount under the Companies Act.

3. Treasury shares

Changes in treasury shares are as follows:

Thousands of shares

	2021	2022
At beginning of period	31,532	31,030
Exercise of share acquisition rights	(503)	(269)
Other	1	1
At end of period	31,030	30,762

^{* 824} thousand shares in the Company held by its associates were included in the balances at March 31, 2021 and 2022.

Note 25. Dividends

1. Dividends paid

		2021			
Resolution	Class of shares	Total amount (Millions of yen)	Dividend per share (Yen)	Record date	Effective date
Ordinary general meeting of stockholders held on June 23, 2020	Common stock	12,806	8.00	March 31, 2020	June 24, 2020
Board of directors meeting held on November 6, 2020	Common stock	7,206	4.50	September 30, 2020	December 1, 2020

		2022			
Resolution	Class of	Total amount	Dividend per	Record date	Effective date
Resolution	shares	(Millions of yen)	share (Yen)	Necord date	Lifective date
Ordinary general meeting of	Common	7,206	4.50	March 31,	June 23,
stockholders held on June 22, 2021	stock	7,200	4.50	2021	2021
Board of directors meeting held on	Common	12 012	9.00	September	December 1,
November 9, 2021	stock	12,812	8.00	30, 2021	2021

2. Dividends whose record dates fall in the year ended March 31, 2022 and whose effective dates fall in the year ending March 31, 2023

		2022			
Resolution	Class of	Total amount	Dividend per	Record date	Effective date
Nesolution	shares	(Millions of yen)	share (Yen)	Necord date	Lifective date
Ordinary general meeting of	Common	12.012	9.00	March 31,	June 24,
stockholders held on June 23, 2022	stock	12,812	8.00	2022	2022

Note 26. Revenue

1. Disaggregation of revenue

Revenue is disaggregated by geographical area based on the location of the Group entities. The relationship between the disaggregated revenue and the revenue (revenue from external customers) of each reportable segment is as follows:

						N	lillions of yen
				2021			
	Fibers & Textiles	Performance Chemicals	Carbon Fiber Composite Materials	Environment & Engineering	Life Science	Other	Total
Japan	422,351	388,992	47,890	166,583	45,596	14,389	1,085,801
Asia	257,425	240,866	14,251	20,637	5,144	135	538,458
North America, Europe and other	39,463	90,560	120,743	6,304	2,225	46	259,341
Total	719,239	720,418	182,884	193,524	52,965	14,570	1,883,600

2022 Carbon Fiber Environment Fibers & Performance Composite & Life Science Other Total **Textiles** Chemicals Materials Engineering 1,210,996 Japan 446,174 487,223 48,623 169,257 44,024 15,695 Asia 339,087 294,832 23,038 22,603 5,809 148 685,517

7,425

199,285

2,121

51,954

Millions of yen

2. Contract balances

50,921

836,182

127,945

910,000

North America,

Europe and other Total

The balances of receivables, contract assets and contract liabilities from contracts with customers are as follows:

143,554

215,215

Millions of yen

332,010

2,228,523

44

15,887

	Receivables from contracts with customers	Contract assets	Contract liabilities
At April 1, 2020	467,897	15,927	14,799
At March 31, 2021	487,078	23,917	17,189
At March 31, 2022	546,223	17,956	22,257

^{*1} The amounts of revenue recognized in the years ended March 31, 2021 and 2022 that were included in the contract liability balance at the beginning of the period were ¥13,667 million and ¥15,743 million, respectively.

^{*2} The amount of revenue recognized from performance obligations satisfied in the prior years was not material for the years ended March 31, 2021 and 2022.

3. Transaction prices allocated to the remaining performance obligations

The transaction prices allocated to the remaining performance obligations and the expected timing of revenue recognition are as follows. The Group applies the practical expedient and therefore the transactions that have an original expected duration of one year or less are not included in the amounts.

Millions of yen

	March 31, 2021	March 31, 2022
1 year or less	39,201	58,784
Over 1 year	35,722	50,016

^{*} There is no significant amount of consideration from contracts with customers that is not included in the transaction prices.

Note 27. Other Income

The breakdown of other income is as follows:

Millions of yen

	2021	2022
Gain on sale or disposal of fixed assets	288	1,031
Other	5,100	4,750
Total	5,388	5,781

Note 28. Other Expenses

The breakdown of other expenses is as follows:

Millions of yen

	2021	2022
Loss on sale or disposal of fixed assets	5,807	5,085
Impairment losses	28,867	27,444
Other	5,354	2,894
Total	40,028	35,423

Note 29. Finance Income and Finance Costs

1. Finance income

The breakdown of finance income is as follows:

		William of yell
	2021	2022
Interest income		
Financial assets measured at amortized cost	1,537	1,521
Dividend income		
Equity instruments measured at fair value through other		
comprehensive income		
Derecognized during period	613	504
Held at end of period	3,770	4,089
Foreign exchange gain	-	482
Other	179	65
Total	6,099	6,661

2. Finance costs

The breakdown of finance costs is as follows:

Millions of yen

	2021	2022
	2021	2022
Interest expenses		
Financial liabilities measured at amortized cost	5,209	4,492
Lease liabilities	470	503
Foreign exchange loss	1,348	-
Other	2,197	1,258
Total	9,224	6,253

Note 30. Other Comprehensive Income

Reclassification adjustments and income taxes for each component of other comprehensive income are as follows:

		Millions of yen
	2021	2022
Investments in equity instruments		
Gains (losses) for the period	50,194	160
Income taxes	(15,192)	(321)
Net of tax	35,002	(161)
Cash flow hedges		
Gains (losses) for the period	(4,042)	9,159
Reclassification adjustments	3,474	(8,150)
Income taxes	179	(309)
Net of tax	(389)	700
Deferred costs of hedging		
Gains (losses) for the period	1,374	312
Reclassification adjustments	(491)	(414)
Income taxes	(270)	31
Net of tax	613	(71)
Exchange differences on translation		
Gains (losses) for the period	55,967	99,107
Reclassification adjustments	-	(60)
Income taxes	(1,026)	(1,107)
Net of tax	54,941	97,940
Remeasurements of defined benefit plans		
Gains (losses) for the period	14,787	13,051
Income taxes	(4,538)	(3,913)
Net of tax	10,249	9,138
Share of other comprehensive income of investments accounted for	CCF	224
using equity method	665	234
Total other comprehensive income	101,081	107,780
<u> </u>		

Note 31. Earnings per Share

1. Basis for calculation of basic earnings per share

Millions of yen

	2021	2022
Profit attributable to common shareholders of parent		
Profit attributable to owners of parent	45,794	84,235
Profit not attributable to common shareholders of parent	-	-
Profit used for calculation of basic earnings per share	45,794	84,235
Average number of common shares for the period (Thousands of shares)	1,600,360	1,600,656
Basic earnings per share (Yen)	28.61	52.63

2. Basis for calculation of diluted earnings per share

Millions of yen

		willions of yen
	2021	2022
Diluted profit attributable to common shareholders		
Profit used for calculation of basic earnings per share	45,794	84,235
Adjustments to profit	-	
Profit used for calculation of diluted earnings per share	45,794	84,235
Average number of common shares for the period (Thousands of shares)	1,600,360	1,600,656
Increase in common shares		
Bonds with share acquisition rights (Thousands of shares)	-	10,380
Share acquisition rights (Thousands of shares)	2,445	2,819
Average number of diluted common shares for the period (Thousands of	1,602,804	1,613,856
shares)	1,002,804	1,013,630
Diluted earnings per share (Yen)	28.57	52.19
	The Company's Zero	
Summary of notantial charge not included in the calculation of diluted	coupon convertible	
Summary of potential shares not included in the calculation of diluted earnings per share because they were antidilutive for the period	bonds due 2021	_
	62,282 thousand	
	shares	

Note 32. Share-based Payments

1. Overview of share option plan

The Company has introduced a share compensation-type share option plan (share acquisition rights) for the Company's members of the Board, vice presidents, executive fellows and directors to enhance their motivation and willingness to improve the Group's performance and to promote sharing of share price benefits with the shareholders.

The share acquisition rights allocated under this plan are vested depending on the number of months in office during the specified service period. Holders of share acquisition rights may exercise their rights only within ten days after the day on which they lose any of their positions as a member of the Board, vice president, executive fellow or director of the Company.

The Company's share option plan is accounted for as an equity-settled share-based payment transaction. The amounts of expenses recognized for the plan were ¥355 million and ¥384 million for the years ended March 31, 2021 and 2022, respectively.

2. Number and weighted average exercise price of share options

The number and weighted average exercise price of share options are as follows. The number of share options is presented in terms of the number of shares to be issued upon exercise of the options.

	2021		2022	
	Number of options	Weighted average	Number of options	Weighted average
	(Thousands of	exercise price	(Thousands of	exercise price
	shares)	(Yen)	shares)	(Yen)
Outstanding at beginning of period	2,389	1	2,739	1
Granted	863	1	578	1
Exercised	(503)	1	(269)	1
Forfeited	(10)	-	(5)	-
Outstanding at end of period	2,739	1	3,043	1
Exercisable at end of period	2,502	1	2,873	1

^{*1} The weighted average share prices at the date of exercise of share options exercised were ¥508.1 and ¥743.2 for the years ended March 31, 2021 and 2022, respectively.

3. Fair value and method of fair value measurement of share options granted during period

The fair value of share options was measured using the Black-Scholes model with the following input assumptions:

	2021	2022
Fair value	421 yen/share	686 yen/share
Share price at grant date	509.4 yen	739.1 yen
Exercise price	1 yen/share	1 yen/share
Expected volatility *1	27.382 %	28.484 %
Expected remaining life of option *2	6 years	6 years
Expected dividend *3	16 yen/share	9 yen/share
Risk-free interest rate *4	(0.070)%	(0.121)%

^{*1} The expected volatility is determined as a historical volatility based on the share price over the past 6 years.

Note 33. Financial Instruments

1. Capital management

The Group's basic capital management policy is to secure and maintain financial soundness in order to achieve sustainable growth. The Group monitors the debt-to-equity (D/E) ratio as the management indicator for capital management, and the status at March 31, 2021 and 2022 was as follows.

The Company is not subject to any significant capital requirements (other than the general provisions of the Companies Act, etc.).

	March 31, 2021	March 31, 2022
Interest-bearing liabilities (Millions of yen)	973,927	935,658
Owner's equity (Millions of yen)	1,237,851	1,405,591
D/E ratio	0.79	0.67

Interest-bearing liabilities: Bonds and borrowings + Lease liabilities Owner's equity: Equity attributable to owners of parent

D/E ratio: Interest-bearing liabilities / Owner's equity

^{*2} The weighted average remaining contractual years of issued options remaining at the end of the period were 26.5 years and 26.3 years at March 31, 2021 and 2022, respectively.

^{*2} The expected remaining life is determined based on the number of years past officers were in office, due to difficulty in making other reasonable estimations.

^{*3} The expected dividends for the years ended March 31, 2021 and 2022 are determined using the actual dividends in the years ended March 31, 2020 and 2021, respectively.

^{*4} The risk-free interest rate is determined as the interest rate of the Japanese government bond with a remaining maturity corresponding to the expected remaining life of the option.

2. Risks arising from financial instruments

The Group conducts risk management based on the following policies to respond to credit risk, liquidity risk and market risk arising from financial instruments.

(1) Credit risk management

Trade receivables of the Group are exposed to customer credit risk. In order to mitigate the risk, under its internal regulations, the Company carefully manages the due dates and outstanding balances of receivables from each customer and regularly monitors the credit standing of major customers. Subsidiaries also monitor and manage the credit standings of their customers. The Group is not exposed to any credit risk that is excessively concentrated on particular counterparties.

(a) Maximum exposure to credit risk

The maximum exposure to credit risk at each fiscal year-end is the carrying amount of financial assets, net of impairment. With regard to guarantee obligations, the Group's maximum exposure to credit risk is the balance of guarantee obligations shown in "Note 37. Commitments and Contingent Liabilities."

(b) Changes in loss allowance

Changes in loss allowance for expected credit losses are as follows. There was no significant change in the gross carrying amounts of financial instruments that would affect the changes in loss allowance for the years ended March 31, 2021 and 2022.

Millions of yen

	Allowance for financial assets that are not credit-impaired	Allowance for credit-impaired financial assets	Allowance for financial guarantee contracts	Total
At April 1, 2020	1,582	3,528	-	5,110
Net provision (reversal)	5,292	1,778	-	7,070
Write-off	(278)	(1,115)	-	(1,393)
Transfer to credit-impaired financial assets	(5,223)	5,223	-	-
Other	14	407	-	421
At March 31, 2021	1,387	9,821	-	11,208
Net provision (reversal)	156	606	871	1,633
Write-off	(31)	(545)	-	(576)
Other	(22)	838	-	816
At March 31, 2022	1,490	10,720	871	13,081

^{*1} The allowance for financial assets that are not credit-impaired mainly relates to trade receivables, etc. to which the simplified approach is applied.

(2) Liquidity risk management

The Group raises funds by borrowing from banks and issuing corporate bonds and is accordingly exposed to the risk of facing difficulty in the repayment due to deterioration in the business climates and funding environment. To mitigate the risk, the Group procures funds by determining the best timing, size and sources after comprehensively taking into consideration the projected fund needs and the financial market trends. The Group also takes measures for effective use of excess cash within the Group by using the cash management system. In addition, the liquidity risk is managed by monitoring projected and actual cash flows. At the same time, to prepare for the urgent fund needs due to deterioration in operating results and cash flows and for the financial market turmoil, the Group secures liquidity by concluding overdraft agreements and other credit facilities with domestic and overseas financial institutions.

^{*2} The amounts of net provision (reversal) related to trade receivables, etc. from contracts with customers were ¥5,181 million and ¥767 million for the year ended March 31, 2021 and 2022, respectively, and are included in "Selling, general and administrative expenses" in the consolidated statement of profit or loss. Other provisions and reversals mainly relate to loans receivable and financial guarantees and are included in "Finance income" and "Finance costs" in the consolidated statement of profit or loss.

^{*3} The carrying amount (net of loss allowance) of credit-impaired financial assets was ¥7,130 million at March 31, 2022. The vast majority of the carrying amount is covered by trade insurances.

The analysis of undiscounted contractual cash flows of financial liabilities by maturity is as follows:

Millions of yen

		March 31, 2021						
	1 year or less	Over 1 year to 2 years	Over 2 years to 3 years	Over 3 years to 4 years	Over 4 years to 5 years	Over 5 years	Total	
Non-derivative financial liabilities								
Trade and other payables	282,812	-	-	-	-	-	282,812	
Bonds and borrowings	283,643	123,263	127,250	67,863	72,827	276,004	950,850	
Leaseliabilities	11,114	8,937	7,241	4,253	2,258	9,414	43,217	
Other financial liabilities								
Deposits received	9,571	-	-	-	-	-	9,571	
Derivative financial liabilities								
Other financial liabilities								
Derivative liabilities	2,269	(96)	(239)	(405)	3,260	-	4,789	

Millions of yen

		March 31, 2022						
	1 year or less	Over 1 year to 2 years	Over 2 years to 3 years	Over 3 years to 4 years	Over 4 years to 5 years	Over 5 years	Total	
Non-derivative financial								
liabilities								
Trade and other payables	327,454	-	-	-	-	-	327,454	
Bonds and borrowings	285,361	161,592	93,048	80,362	40,533	256,148	917,044	
Leaseliabilities	11,174	8,950	5,415	2,898	2,151	9,020	39,608	
Other financial liabilities								
Deposits received	8,612	-	-	-	-	-	8,612	
Derivative financial liabilities								
Other financial liabilities								
Derivative liabilities	3,414	15	-	-	-	-	3,429	

^{*} Contractual cash flows of derivative financial liabilities are presented on a net basis, as net cash inflow or outflow.

(3) Market risk management

The Group is exposed to the risk of fluctuations in fair value and future cash flows of financial instruments due to changes in market prices. Major market risks that the Group is exposed to include currency risk, interest rate risk and equity price risk. In order to mitigate these risks, the Group uses derivative transactions such as forward exchange contracts and interest rate swaps as necessary. Derivative transactions are executed and managed in accordance with internal regulations prescribing the authorizations for transactions. In addition, the Group carries out derivative transactions only with financial institutions with a high credit rating in order to mitigate the credit risk associated with derivative transactions. The Group uses derivatives only for hedging market risks and does not enter into derivative transactions for speculative purposes.

(a) Currency risk

Trade receivables and payables denominated in foreign currencies that arise from the Group's global business operations are exposed to the foreign currency exchange rate risk. The Group hedges this risk mainly through the use of forward exchange contracts against net positions of receivables and payables denominated in the same foreign currencies. Likewise, the Group mainly uses cross-currency swaps to hedge the foreign currency exchange rate risk of borrowings denominated in foreign currencies.

For financial instruments held by the Group at March 31, 2021 and 2022, the impact of a 1% appreciation of each currency against the functional currencies on "Profit before tax" in the consolidated statement of profit or loss is as follows. The effects of translating financial instruments denominated in the functional currencies and the assets, liabilities, income and expenses of foreign operations into yen are not included. In addition, it is assumed that currencies other than that used in the calculation do not fluctuate and assumed that other variable factors remain constant.

Millions of yen

	March 31, 2021	March 31, 2022
Impact on profit before tax	16	17

(b) Interest rate risk

The Group's interest-bearing liabilities are exposed to the risk of market interest rate fluctuation. Those with floating rates bear the risk of higher nominal interest expenses when market interest rates rise, whereas those with fixed rates bear the risk of higher real interest expenses when market interest rates fall. The Group uses interest rate swaps as necessary to mitigate the risk of interest rate fluctuation, taking into consideration the balance between fixed-rate liabilities and floating-rate liabilities.

For interest-bearing liabilities with floating interest rates held by the Group at March 31, 2021 and 2022, the impact of a 1% increase in interest rates at the end of the period on "Profit before tax" in the consolidated statement of profit or loss is as follows. It is assumed that all other variables remain constant.

Millions of yen

	March 31, 2021	March 31, 2022
Impact on profit before tax	(2,363)	(2,244)

(c) Equity price risk

The Group holds shares not for trading purposes but mainly for the purposes of strengthening business relationships, smoothing business alliances and reinforcing joint research and technology development activities. These shares are exposed to stock price fluctuation risk. The Group regularly monitors the financial positions of the issuing entities and sells shares with the diminished significance of holding due to a change in business relationships and other reasons. These are designated as equity instruments measured at fair value through other comprehensive income, and therefore there is no impact on profit or loss arising from stock price fluctuations.

3. Fair value of financial instruments

(1) Fair value hierarchy of financial instruments

The fair value hierarchy of financial instruments is categorized from Level 1 to Level 3 as follows:

- Level 1: Fair value measured by quoted prices in active markets
- Level 2: Fair value calculated, directly or indirectly, using observable prices other than Level 1
- Level 3: Fair value calculated using valuation techniques including inputs not based on observable market data Transfers between levels of the fair value hierarchy are recognized as if they have occurred at the end of each reporting period. There were no transfers between Level 1 and Level 2 for the years ended March 31, 2021 and 2022.

(2) Fair value of financial instruments measured at amortized cost

The following table compares the fair value and the carrying amount of financial instruments measured at amortized cost. Financial instruments whose carrying amount is a reasonable approximation of the fair value and financial instruments with low materiality are not included in the following table.

Millions of yen

	March 31	March 31, 2021		, 2022
	Carrying amount	Fair value	Carrying amount	Fair value
Financial liabilities				
Bonds and borrowings				
Bonds payable	290,158	291,255	239,946	240,080
Long-term borrowings	469,993	468,489	505,397	496,850
Total	760,151	759,744	745,343	736,930

^{*} The fair value of the above financial instruments is categorized within Level 2.

The fair value of major financial instruments measured at amortized cost is determined as follows:

- (a) Cash and cash equivalents, trade and other receivables

 Since these are settled in the short term, the fair value reasonably approximates the carrying amount.
- (b) Trade and other payables, short-term borrowings, commercial papers

 Since these are settled in the short term, the fair value reasonably approximates the carrying amount.
- (c) Bonds payable

The fair value of a bond is determined based on the market price, if available. If a market price is not available, the fair value is determined as the present value of total principal and interest amount discounted using an estimated interest rate reflecting the bond's remaining term and credit risk. Such fair value is categorized within Level 2.

(d) Long-term borrowings

The fair value of a long-term borrowing is determined as the present value of total principal and interest amount discounted using an estimated interest rate of hypothetical, equivalent new borrowings. Such fair value is categorized within Level 2.

(3) Financial instruments measured at fair value

The breakdown of financial assets and liabilities measured at fair value on a recurring basis that are categorized by level of the fair value hierarchy is as follows:

	March 31, 2021				
	Level 1	Level 2	Level 3	Total	
Financial assets					
Other financial assets					
Shares and investments in capital	174,614	-	17,810	192,424	
Derivative assets	-	7,363	-	7,363	
Other	-	-	300	300	
Total	174,614	7,363	18,110	200,087	
Financial liabilities					
Other financial liabilities					
Derivative liabilities	-	4,803	-	4,803	
Total	-	4,803	-	4,803	

Millions of yen

	March 31, 2022				
	Level 1	Level 2	Level 3	Total	
Financial assets					
Other financial assets					
Shares and investments in capital	163,528	-	18,173	181,701	
Derivative assets	-	16,054	-	16,054	
Other	-	-	300	300	
Total	163,528	16,054	18,473	198,055	
Financial liabilities					
Other financial liabilities					
Derivative liabilities	•	3,429	-	3,429	
Total	-	3,429	-	3,429	

The fair value of major financial instruments measured at fair value is determined as follows:

(a) Shares and investments in capital

The fair value of shares whose market prices in active markets are available is measured using market prices and is categorized within Level 1. The fair value of shares and investments in capital whose market prices in active markets are not available is measured using appropriate valuation techniques, such as the comparable company method, and is categorized within Level 3. Adjustments including certain illiquidity discounts are taken into account as necessary.

(b) Derivative assets and derivative liabilities

The fair value of forward exchange contracts is determined based on forward exchange rates or prices quoted by financial institutions, and the fair value of cross-currency swaps and interest rate swaps is determined based on prices quoted by financial institutions. Both are categorized within Level 2.

Reconciliation of the balance at the beginning and end of the period for recurring fair value measurement categorized within Level 3 of the fair value hierarchy is as follows:

Millions of yen

		/ -
	2021	2022
At beginning of period	16,799	18,110
Gains (losses) recognized in profit or loss	7	-
Gains (losses) recognized in other comprehensive income	3,699	414
Purchases	766	59
Sales	(641)	(303)
Transfer to Level 1 due to listing	(2,614)	(14)
Other	94	207
At end of period	18,110	18,473

^{*1} Gains (losses) recognized in profit or loss is included in "Finance income" and "Finance costs" in the consolidated statement of profit or loss, and gains (losses) recognized in other comprehensive income is included in "Investments in equity instruments" in the consolidated statement of comprehensive income.

4. Hedge accounting

(1) Overview of hedges

The Group enters into derivative transactions to reduce currency risk and interest rate risk, and applies hedge accounting to those that qualify as cash flow hedges or fair value hedges. Cash flow hedges are used primarily to reduce the risk of fluctuations in future cash flows related to forecast transactions and borrowings denominated in foreign currencies and borrowings with floating interest rates. Fair value hedges are used to convert the interest rates on borrowings to floating interest rates and accordingly reduce the risk of changes in the fair value of such borrowings.

^{*2} The method of measurement of financial instruments categorized within Level 3 is determined by the department in charge in accordance with the valuation policies and procedures for the fair value measurement approved by the appropriate authority. Fair value is measured by the said department and the results of the fair value measurement are approved by the appropriate persons in charge.

The currency basis spread of a cross-currency swap used to reduce currency risk is excluded from the hedging instrument and recognized as a deferred cost of hedging in other comprehensive income. In addition, the ineffective portion of hedging is immaterial because, in applying hedge accounting, the important conditions such as the quantity, term and benchmark interest rate for the hedged items and the hedging instruments are in principle made almost the same.

(2) Information on items designated as hedging instruments

The nominal amount and its timing and the carrying amount of hedging instruments are as follows:

Millions of yen

		March 31, 2021				
	Nominal amount	Of which due	Carrying amount (fair value)			
	Nominal amount	over 1 year	Assets	Liabilities		
Cash flow hedges						
Currency risk						
Forward exchange contracts	37,421	299	246	840		
Cross-currency swaps *1	87,647	86,870	5,418	2,439		
Interest rate risk						
Interest rate swaps *2	59,785	59,785	196	-		
Fair value hedges						
Interest rate risk						
Interest rate swaps	26,900	26,900	130	-		

Millions of yen

	March 31, 2022				
	Naminal amount	Of which due	Carrying amount (fair value)		
	Nominal amount	over 1 year	Assets	Liabilities	
Cash flow hedges					
Currency risk					
Forward exchange contracts	44,528	123	596	1,345	
Cross-currency swaps *1	99,164	98,305	12,554	-	
Interest rate risk					
Interest rate swaps *2	59,785	59,785	268	-	
Fair value hedges					
Interest rate risk					
Interest rate swaps	26,900	8,200	69	-	

^{*1} These are mainly contracts to borrow yen principal in exchange for U.S. dollar principal. The average rates of the contracts at March 31, 2021 and 2022 were ¥107.2 per U.S. dollar.

(3) Information on items designated as hedged items

The impact of items designated as hedged items on the consolidated statement of financial position is as follows:

(a) Cash flow hedges

	March 31, 2021	March 31, 2022
	Cash flow hedge	Cash flow hedge
	reserve (net of tax)	reserve (net of tax)
Currency risk		
Principal and interest on bonds and borrowings	(364)	(161)
Forecast operating transactions and other	(436)	(522)
Interest rate risk		
Interest on bonds and borrowings	116	174

^{*} The amount of cash flow hedge reserve related to hedging relationships for which hedge accounting was discontinued is immaterial.

^{*2} The average paying fixed interest rates at March 31, 2021 and 2022 were (0.18)% and (0.19)%, respectively, and the receiving floating interest rates were yen LIBOR and Tokyo Term Risk Free Rate ("TORF"), respectively.

^{*3} Derivatives used as hedging instruments are included in "Other financial assets" and "Other financial liabilities" in the consolidated statement of financial position.

(b) Fair value hedges

Discontinued hedge

				willions of yen		
		March 31, 2021				
			Accumulated	fair value hedge		
	Carrying amour	nt of hedged items	adjustments included in carrying amount of hedged items			
	Assets	Liabilities	Assets	Liabilities		
Interest rate risk						
Bonds and borrowings						
Continuing hedge	-	27,018	-	130		

40,809

Millions of ven

843

Millions of yen

				willions of yen	
		March 31, 2022			
	Carrying amou	nt of hedged items	adjustments ir	I fair value hedge ncluded in carrying f hedged items	
	Assets	Liabilities	Assets	Liabilities	
Interest rate risk					
Bonds and borrowings					
Continuing hedge		26,963		- 69	
Discontinued hedge		40,379		- 394	

(4) Impact of hedge accounting on the consolidated statement of profit or loss and the consolidated statement of comprehensive income

The impact (before tax) of hedge accounting on the consolidated statement of profit or loss and the consolidated statement of comprehensive income is as follows:

Millions of yen

	20)21	20	022
	Changes in value of hedging instruments recognized in other comprehensive income	Reclassification adjustments to profit or loss	Changes in value of hedging instruments recognized in other comprehensive income	Reclassification adjustments to profit or loss
Cash flow hedges				
Currency risk *1	(4,092)	3,537	9,026	(8,101)
Interest rate risk *2	50	(63)	133	(49)

^{*1} Reclassification adjustments related to currency risk are included in "Revenue," "Finance income" and "Finance costs" in the consolidated statement of profit or loss.

5. Interest rate benchmark reform

The Group has floating interest rate borrowings and cross-currency swaps linked to U.S. dollar LIBOR, and those with maturity dates subsequent to the date of cessation of U.S. dollar LIBOR publication are subject to uncertainties arising from the interest rate benchmark reform. The Group assumes that uncertainties will exist until an alternative benchmark rate is determined and the cash flows based on the benchmark rate are confirmed. The carrying amount of the affected borrowings and the nominal amount of the affected cross-currency swaps were ¥105,433 million and ¥98,090 million, respectively, at March 31, 2022. The cross-currency swaps are designated as hedging instruments related to the fluctuation of principal and interest on the borrowings. The Group is working with the financial institutions involved in such borrowings and cross-currency swaps to prepare for the transition to an alternative benchmark rate.

^{*2} Reclassification adjustments related to interest rate risk are included in "Finance income" and "Finance costs" in the consolidated statement of profit or loss.

^{*3} The amount recognized in profit or loss for the ineffective portion of hedges was immaterial for the years ended March 31, 2021 and 2022

The Group has completed the transition of the floating interest rate borrowings, interest rate swaps and cross-currency swaps that were previously linked to yen LIBOR, which ceased to be published at the end of December, 2021, to an alternative benchmark rate, TORF.

6. Transfers of financial assets that do not qualify for derecognition

The Group converts a portion of trade receivables into cash before the due date through such methods as discounting trade notes and liquidating accounts receivable. If these transferred receivables become uncollectible, the Group will be obligated to make payments to financial institutions. Therefore, the transferred receivables continue to be included in "Trade and other receivables" in the consolidated statement of financial position, and the amount received for the transfer is included in "Bonds and borrowings."

The carrying amount of transferred receivables that do not qualify for derecognition and related liabilities is as follows:

Millions of yen

	March 31, 2021	March 31, 2022
Trade and other receivables	12,920	18,941
Bonds and borrowings	12,920	18,941

Note 34. Cash Flow Information

1. Reconciliation of liabilities arising from financing activities

Reconciliation of liabilities arising from financing activities is as follows:

Millions of yen

				2021			
		Changes		Non-cash changes			
	At beginning of period	from financing cash flows	Changes in foreign exchange rates	Changes in fair value	New leases	Other	At end of period
Short-term borrowings	154,888	(15,269)	3,516	-	-	-	143,135
Commercial papers	10,000	20,000	-	-	-	-	30,000
Long-term borrowings	498,588	(39,874)	11,246	-	-	33	469,993
Bonds payable	290,187	-	-	-	-	(29)	290,158
Lease liabilities	37,361	(11,615)	675	-	14,550	(330)	40,641
Derivatives used to hedge liabilities	(7,973)	4,906	-	(205)	-	-	(3,272)
Total	983,051	(41,852)	15,437	(205)	14,550	(326)	970,655

	_					IVIII	nons of yen
				2022			
		Changes		Non-cash	changes		
	At beginning of period	Changes from financing cash flows	Changes in foreign exchange rates	Changes in fair value	New leases	Other	At end of period
Short-term borrowings	143,135	(2,646)	9,478	-	-	2,731	152,698
Commercial papers	30,000	(30,000)	-	-	-	-	-
Long-term borrowings	469,993	15,940	19,394	-	-	70	505,397
Bonds payable	290,158	(50,000)	-	-	-	(212)	239,946
Lease liabilities	40,641	(11,638)	1,444	-	6,319	851	37,617
Derivatives used to hedge liabilities	(3,272)	-	-	(9,599)	-	-	(12,871)
Total	970,655	(78,344)	30,316	(9,599)	6,319	3,440	922,787

2. Non-cash transactions

The Group acquired equity securities valued at ¥22,388 million by a partial return of retirement benefit trust assets in the year ended March 31, 2022.

Note 35. Subsidiaries

The major subsidiaries at March 31, 2022 were as follows:

Company name	Main business *	Location	March 31, 2022 Ownership percentage of voting rights (%)
Toray International, Inc.	Trading	Japan	100.0
Chori Co., Ltd.	Trading	Japan	52.8
Toray Engineering Co., Ltd.	Environment & Engineering	Japan	100.0
Toray Plastics (America), Inc.	Performance Chemicals	U.S.A.	100.0
Toray Composite Materials America, Inc.	Carbon Fiber Composite Materials	U.S.A.	100.0
Zoltek Companies, Inc.	Carbon Fiber Composite Materials	U.S.A.	100.0
Alcantara S.p.A.	Fibers & Textiles	Italy	70.0
Thai Toray Synthetics Co., Ltd.	Fibers & Textiles, Performance Chemicals	Thailand	90.0
Toray Plastics (Malaysia) Sdn. Berhad	Performance Chemicals	Malaysia	100.0
Toray Sakai Weaving & Dyeing (Nantong) Co., Ltd.	Fibers & Textiles	China	84.8
Toray Advanced Materials Korea Inc.	Fibers & Textiles, Performance Chemicals, Carbon Fiber Composite Materials, Environment & Engineering	Republic of Korea	100.0

^{* &}quot;Main business" shows segment names except for trading companies.

Note 36. Related Parties

1. Related party transactions

Transactions between the Group and related parties are as follows:

Millions of yen

	2022		
Category	Name	Transaction	Amount
Post-employment benefit	Toray corporate pension	Partial return of retirement	22,388
plans for employees	fund	benefit trust assets	22,300

2. Key management personnel compensation

Total key management personnel compensation of the Group is as follows:

	2021	2022
Basic remuneration and bonus	777	708
Share compensation-type share option plan	123	103
Total	900	811

Note 37. Commitments and Contingent Liabilities

1. Commitments for the acquisition of assets

Commitments for the acquisition of assets are as follows:

Millions of yen

	March 31, 2021	March 31, 2022
Property, plant and equipment	6,275	12,782
Intangible assets	468	1,461
Total	6,743	14,243

2. Guarantee obligations

The amount of guarantee obligations related to bank loans, etc. of joint ventures, associates and third parties is as follows:

Millions of yen

	March 31, 2021	March 31, 2022
Joint ventures and associates	4,232	4,436
Customers in housing business and other	1,180	2,865
Total	5,412	7,301

Note 38. Subsequent Events

LG Chem completed the investment in the Company's subsidiary, and the joint venture was established on June 16, 2022. The detailed information is described in "Note 10. Assets Held for Sale."

Independent Auditor's Report

The Board of Directors Toray Industries, Inc.

Opinion

We have audited the accompanying consolidated financial statements of Toray Industries, Inc. and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at March 31, 2022, and the consolidated statements of profit or loss, comprehensive income, changes in equity, and cash flows for the year then ended, and notes to the consolidated financial statements.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at March 31, 2022, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRSs).

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in Japan. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in Japan, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of the audit of the consolidated financial statements as a whole, and in forming the auditor's opinion thereon, and we do not provide a separate opinion on these matters.

Valuation of goodwill in the Carbon Fiber Composite Materials segment

Description of Key Audit Matter

As described in "Note 13. Goodwill and Intangible Assets" in the notes to the consolidated financial statements, the Company recorded goodwill of 88,122 million yen (2.9% of total assets) as of March 31, 2022. Of this amount, in the Carbon Fiber Composite Materials segment, 66,671 million yen (75.7% of total goodwill) was recorded for Toray TCAC Holding B.V. and 12,802 million yen (14.5% of total goodwill) was recorded for Zoltek Companies, Inc.

The Company tests cash-generating units or groups of cash-generating units to which goodwill has been allocated for impairment annually and whenever there is an indication of impairment, and measures the recoverable amount of each cash-generating unit at its value in use. The recoverable amount of each cash-generating unit that included goodwill belonging to the Carbon Fiber Composite Materials segment exceeded its corresponding carrying amounts in the impairment tests for the fiscal year ended March 31, 2022.

The value in use was determined by combining the discounted present value of the future cash flows based

Auditor's Response

We performed the following audit procedures in considering the valuation of goodwill in the Carbon Fiber Composite Materials segment, among others:

- We verified the valuation method used in calculating value in use by involving valuation specialists of our network firms.
- For sales volumes and sales prices set forth in the business plan, we held discussions with management and analyzed related figures by comparing them with past actual results.
- We compared the Company's demand outlook for its products, which is a premise used in estimating sales volumes, with market forecasts and available external data
- We evaluated the effectiveness of the estimation process that management uses for the business plan by comparing business plans from prior fiscal years with the corresponding actual results.
- We verified the consistency between future cash flows and the business plan approved by management.

on the business plan for the next five years approved by management with a terminal value, reflecting past experience and external information. The business plan is primarily affected by changes in sales volumes and sales prices and the terminal value was calculated using the growth rate based on the expected inflation rate of the country to which the cash-generating unit belonged.

The key assumptions used in estimating the value in use are sales volumes and sales prices set forth in the business plan, as well as the growth rate and discount rate used in calculating the terminal value.

Given that sales volumes and sales prices set forth in the business plan as well as the growth rate, which are key assumptions underlying estimates of the aforementioned goodwill, are subject to uncertainties, such as declining demand and prices of products due to product demand and trends in market conditions, and thus require management judgment, we determined the valuation of goodwill in the Carbon Fiber Composite Materials segment to be a key audit matter.

- We compared the growth rate and discount rate with estimates that were prepared by valuation specialists of our network firms using available external data.
- We performed a sensitivity analysis with regard to sales volumes and sales prices set forth in the business plan as well as the growth rate and discount rate used in calculating the terminal value.

Valuation of production facilities, goodwill and other assets in the battery separator films business in the Performance Chemicals segment

Description of Key Audit Matter

As described in "Note 14. Impairment Losses" in the notes to the consolidated financial statements, the Company recorded an impairment loss of 15,458 million yen on production facilities, goodwill and other assets in the battery separator films business in Republic of Korea in the Performance Chemicals segment for the fiscal year ended March 31, 2022 primarily due to declining profitability mainly in the automotive applications resulting from intensifying market competition. The carrying amount of the production facilities and other assets after recording the impairment loss is 53,822 million yen, which is mainly included in property, plant and equipment.

In considering the amount to record for the impairment loss on production facilities, goodwill and other assets in the aforementioned battery separator films business, the Company measures the recoverable amounts of cash-generating units at their value in use.

The future cash flows used to calculate the value in use were estimated based on the business plan for the next five years approved by management reflecting past experience and external information, and for years after the five years, estimated using the growth rate based on the expected inflation rate of the country to which the cash-generating unit belonged. The business plan is primarily affected by changes in sales volumes and sales prices.

The key assumptions used in estimating the value in use are sales volumes and sales prices set forth in the

Auditor's Response

We involved component auditors and performed the following audit procedures in considering impairment loss on production facilities, goodwill and other assets in the battery separator films business in Republic of Korea, among others:

- We verified the valuation method used in calculating value in use by involving valuation specialists of our network firms.
- For sales volumes and sales prices set forth in the business plan, we held discussions with management and analyzed related figures by comparing them with past actual results.
- We compared the Company's demand outlook for its products, which is a premise used in estimating sales volumes, with market forecasts and available external data.
- We evaluated the effectiveness of the estimation process that management uses for the business plan by comparing business plans from prior fiscal years with the corresponding actual results.
- We verified the consistency between future cash flows and the business plan approved by management.
- We compared the growth rate and discount rate with estimates that were prepared by valuation specialists of our network firms using available external data.
- We performed a sensitivity analysis with regard to sales volumes and sales prices set forth in the business plan as well as the growth rate used in

business plan, as well as the growth rate used in calculating the future cash flows after the five years and discount rate.

Given that sales volumes and sales prices set forth in the business plan as well as the growth rate, which are key assumptions underlying estimates of the value in use related to the production facilities, goodwill and other assets, are subject to uncertainties, such as declining demand and prices of products due to trends in the automotive applications market, and thus require management judgment, we determined the valuation of production facilities, goodwill and other assets in the battery separator films business in the Performance Chemicals segment to be a key audit matter.

calculating the future cash flows after the five years and discount rate.

Other Information

The other information comprises the information included in the Consolidated Financial Statements that contains audited consolidated financial statements but does not include the consolidated financial statements and our auditor's report thereon.

We have concluded that the other information did not exist. Accordingly, we have not performed any work related to the other information.

Responsibilities of Management, the Corporate Auditor and the Board of Corporate Auditors for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with IFRSs, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern and disclosing, as required by IFRSs, matters related to going concern.

The Corporate Auditor and the Board of Corporate Auditors are responsible for overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with auditing standards generally accepted in Japan, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion.
- Consider internal control relevant to the audit in order to design audit procedures that are appropriate in the
 circumstances for our risk assessments, while the purpose of the audit of the consolidated financial statements
 is not expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated

financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the
 disclosures, and whether the consolidated financial statements represent the underlying transactions and
 events in a manner that achieves fair presentation in accordance with IFRSs.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business
 activities within the Group to express an opinion on the consolidated financial statements. We are responsible
 for the direction, supervision and performance of the group audit. We remain solely responsible for our audit
 opinion.

We communicate with the Corporate Auditor and the Board of Corporate Auditors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Corporate Auditor and the Board of Corporate Auditors with a statement that we have complied with the ethical requirements regarding independence that are relevant to our audit of the consolidated financial statements in Japan, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the Corporate Auditor and the Board of Corporate Auditors, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Interest Required to Be Disclosed by the Certified Public Accountants Act of Japan

Our firm and its designated engagement partners do not have any interest in the Group which is required to be disclosed pursuant to the provisions of the Certified Public Accountants Act of Japan.

Ernst & Young ShinNihon LLC

Tokyo, Japan

June 23, 2022

/s/ Noriaki Kenmochi
Designated Engagement Partner
Certified Public Accountant

/s/ Takeshi Isogai
Designated Engagement Partner
Certified Public Accountant

/s/ Minoru Io
Designated Engagement Partner
Certified Public Accountant