

Consolidated Financial Statements

Years ended March 31, 2022 and 2021

This document has been extracted and translated from the Japanese original report (Yukashoken-Hokokusho) issued on June 24, 2022 for reference purposes only. In the event of any discrepancy between this translated document and Japanese version, the Japanese version shall prevail.

Consolidated Statement of Income

Mitsubishi Chemical Holdings Corporation and Consolidated Subsidiaries
Fiscal years ended March 31

	Millions of yen	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Continuing operations:		
Sales revenue (Notes 4 and 6)	¥ 3,257,535	¥ 3,976,948
Cost of sales	(2,331,286)	(2,862,224)
Gross profit	926,249	1,114,724
Selling, general and administrative expenses	(752,693)	(854,455)
Other operating income (Note 9)	30,713	81,692
Other operating expenses (Note 9)	(172,391)	(59,961)
Share of profit of associates and joint ventures (Notes 4 and 16)	15,640	21,194
Operating income (Note 4)	47,518	303,194
Financial income (Note 10)	8,252	9,368
Financial expenses (Note 10)	(22,862)	(22,192)
Income before taxes	32,908	290,370
Income taxes (Note 11)	(10,186)	(80,965)
Net income from continuing operations	¥ 22,722	¥ 209,405
Net income attributable to:		
Owners of the parent	¥ (7,557)	¥ 177,162
Non-controlling interests	30,279	32,243
Earnings per share:		
		(Yen)
Basic earnings(loss) per share attributable to owners of the parent (Note 12)	¥ (5.32)	¥ 124.68
Diluted earnings(loss) per share attributable to owners of the parent (Note 12)	¥ (5.32)	¥ 115.03

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

Consolidated Statement of Comprehensive Income

Mitsubishi Chemical Holdings Corporation and Consolidated Subsidiaries
Fiscal years ended March 31

	Millions of yen	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Net income	¥ 22,722	¥209,405
Other comprehensive income:		
Items that will not be reclassified to profit or loss:		
Net gain (loss) on revaluation of financial assets measured at fair value through other comprehensive income (Note 25)	26,675	4,471
Remeasurements of defined benefit pensions plans (Note 25)	26,817	7,328
Share of other comprehensive income (loss) of associates and joint ventures for using the equity method (Note 25)	(191)	(6)
Total items that will not be reclassified to profit or loss	53,301	11,793
Items that may be subsequently reclassified to profit or loss		
Exchange differences on translation of foreign operations (Note 25)	81,019	104,596
Net gain (loss) on derivatives designated as cash flow hedges (Note 25)	180	2,384
Share of other comprehensive income (loss) of associates and joint ventures for using the equity method (Note 25)	3,329	4,656
Total items that may be subsequently reclassified to profit or loss	84,528	111,636
Total other comprehensive income (net of tax)	137,829	123,429
Total comprehensive income	¥160,551	¥332,834
Total comprehensive income attributable to:		
Owners of the parent	¥ 97,068	¥268,003
Non-controlling interests	63,483	64,831

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

		Millions of yen	
		March 31, 2021	March 31, 2022
Liabilities and Equity			
Liabilities	Current liabilities:		
	Trade payables (Note 34)	¥ 382,272	¥ 486,874
	Bonds and borrowings (Note 29)	653,475	411,213
	Income tax payable	22,283	34,875
	Other financial liabilities (Note 31)	272,341	291,237
	Provisions (Note 28)	11,690	15,601
	Other current liabilities (Note 33)	147,911	178,613
	Subtotal	1,489,972	1,418,413
	Liabilities directly associated with assets held for sale (Note 22)	2,534	880
	Total current liabilities	1,492,506	1,419,293
	Non-current liabilities:		
	Bonds and borrowings (Note 29)	1,696,029	1,748,756
	Other financial liabilities (Note 31)	118,300	112,554
	Retirement benefit liabilities (Note 27)	112,272	103,941
	Provisions (Note 28)	27,398	22,673
	Other non-current liabilities (Note 33)	113,730	147,212
	Deferred tax liabilities (Note 11)	155,845	175,123
	Total non-current liabilities	2,223,574	2,310,259
	Total liabilities	3,716,080	3,729,552
	Equity	Common stock: (Note 23)	50,000
Additional paid-in capital (Note 23)		179,716	170,600
Treasury stock (Note 23)		(63,244)	(62,870)
Retained earnings (Note 23)		1,060,069	1,213,677
Other components of equity (Note 23)		9,798	86,670
Equity attributable to owners of the parent		1,236,339	1,458,077
Non-controlling interests		334,809	386,242
Total equity		1,571,148	1,844,319
Total liabilities and equity		¥5,287,228	¥5,573,871

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

Consolidated Statement of Changes in Equity

Mitsubishi Chemical Holdings Corporation and Consolidated Subsidiaries

Fiscal year ended March 31, 2021

	Millions of yen			
	Common stock	Additional paid-in capital	Treasury stock	Retained earnings
Balance at April 1, 2020	¥50,000	¥176,715	¥(63,485)	¥1,071,260
Net income	—	—	—	(7,557)
Other comprehensive income (Note 25)	—	—	—	—
Total comprehensive income	—	—	—	(7,557)
Purchase of treasury stock (Note 23)	—	—	(20)	—
Disposal of treasury stock (Note 23)	—	(198)	261	—
Cash dividends (Note 24)	—	—	—	(34,091)
Share-based payment transactions (Note 26)	—	(13)	—	—
Changes in interests in subsidiaries	—	756	—	—
Business combinations or business divestitures	—	2,456	—	—
Changes in scope of consolidation	—	—	—	51
Transfer from other components of equity to retained earnings	—	—	—	30,406
Transfer from other components of equity to non-financial assets	—	—	—	—
Total transactions with owners	—	3,001	241	(3,634)
Balance at March 31, 2021	¥50,000	¥179,716	¥(63,244)	¥1,060,069

Other components of equity

	Net gain (loss) on revaluation of financial assets measured at fair value through other comprehensive income	Remeasurements of defined benefit pensions plans	Exchange differences on translation of foreign operations	Net gain (loss) on derivatives designated as cash flow hedges	Total	Equity attributable to owners of the parent	Non-controlling interests	Total equity
Balance at April 1, 2020	¥38,335	¥ —	¥(102,773)	¥170	¥(64,268)	¥1,170,222	¥280,607	¥1,450,829
Net income	—	—	—	—	—	(7,557)	30,279	22,722
Other comprehensive income (Note 25)	22,523	26,255	55,696	151	104,625	104,625	33,204	137,829
Total comprehensive income	22,523	26,255	55,696	151	104,625	97,068	63,483	160,551
Purchase of treasury stock (Note 23)	—	—	—	—	—	(20)	—	(20)
Disposal of treasury stock (Note 23)	—	—	—	—	—	63	—	63
Cash dividends (Note 24)	—	—	—	—	—	(34,091)	(11,049)	(45,140)
Share-based payment transactions (Note 26)	—	—	—	—	—	(13)	—	(13)
Changes in interests in subsidiaries	—	—	—	—	—	756	361	1,117
Business combinations or business divestitures	—	—	—	—	—	2,456	1,488	3,944
Changes in scope of consolidation	—	—	—	—	—	51	(81)	(30)
Transfer from other components of equity to retained earnings	(4,151)	(26,255)	—	—	(30,406)	—	—	—
Transfer from other components of equity to non-financial assets	—	—	—	(153)	(153)	(153)	—	(153)
Total transactions with owners	(4,151)	(26,255)	—	(153)	(30,559)	(30,951)	(9,281)	(40,232)
Balance at March 31, 2021	¥56,707	¥ —	¥(47,077)	¥168	¥9,798	¥1,236,339	¥334,809	¥1,571,148

Fiscal year ended March 31, 2022

	Millions of yen			
	Common stock	Additional paid-in capital	Treasury stock	Retained earnings
Balance at April 1, 2021	¥50,000	¥179,716	¥(63,244)	¥1,060,069
Net income(loss)	—	—	—	177,162
Other comprehensive income (Note 25)	—	—	—	—
Total comprehensive income	—	—	—	177,162
Purchase of treasury stock (Note 23)	—	—	(31)	—
Disposal of treasury stock (Note 23)	—	(403)	405	—
Cash dividends (Note 24)	—	—	—	(38,367)
Share-based payment transactions (Note 26)	—	533	—	—
Forfeiture of share acquisition rights	—	(1,106)	—	823
Changes in interests in subsidiaries	—	(8,140)	—	—
Business combinations or business divestitures	—	—	—	—
Changes in scope of consolidation	—	—	—	21
Transfer from other components of equity to retained earnings	—	—	—	13,969
Total transactions with owners	—	(9,116)	374	(23,554)
Balance at March 31, 2022	¥50,000	¥170,600	¥(62,870)	¥1,213,677

Other components of equity

	Net gain (loss) on revaluation of financial assets measured at fair value through other comprehensive income	Remeasurements of defined benefit pensions plans	Exchange differences on translation of foreign operations	Net gain (loss) on derivatives designated as cash flow hedges	Total	Equity attributable to owners of the parent	Non-controlling interests	Total equity
Balance at April 1, 2021	¥56,707	¥ —	¥(47,077)	¥ 168	¥ 9,798	¥1,236,339	¥334,809	¥1,571,148
Net income(loss)	—	—	—	—	—	177,162	32,243	209,405
Other comprehensive income (Note 25)	1,063	7,155	80,395	2,228	90,841	90,841	32,588	123,429
Total comprehensive income	1,063	7,155	80,395	2,228	90,841	268,003	64,831	332,834
Purchase of treasury stock (Note 23)	—	—	—	—	—	(31)	—	(31)
Disposal of treasury stock (Note 23)	—	—	—	—	—	2	—	2
Cash dividends (Note 24)	—	—	—	—	—	(38,367)	(15,963)	(54,330)
Share-based payment transactions (Note 26)	—	—	—	—	—	533	—	533
Forfeiture of share acquisition right	—	—	—	—	—	(283)	—	(283)
Changes in interests in subsidiaries	—	—	—	—	—	(8,140)	2,553	(5,587)
Business combinations or business divestitures	—	—	—	—	—	—	(9)	(9)
Changes in scope of consolidation	—	—	—	—	—	21	21	42
Transfer from other components of equity to retained earnings	(6,814)	(7,155)	—	—	(13,969)	—	—	—
Total transactions with owners	(6,814)	(7,155)	—	—	(13,969)	(46,265)	(13,398)	(59,663)
Balance at March 31, 2022	¥50,956	¥ —	¥33,318	¥2,396	¥86,670	¥1,458,077	¥386,242	¥1,844,319

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

Consolidated Statement of Cash Flows

Mitsubishi Chemical Holdings Corporation and Consolidated Subsidiaries

Millions of yen

	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Cash flows from operating activities:		
Income before taxes	¥ 32,908	¥290,370
Depreciation and amortization	243,793	251,469
Share of (profit) loss of associates and joint ventures	(15,640)	(21,194)
Impairment loss	127,193	26,047
Loss on sales and retirement of property, plant and equipment	11,458	14,407
Loss on liquidation of subsidiaries and associates	7,379	270
Provision for loss related to plant closure	3,318	—
Gain on transfer of businesses	(1,428)	(60,838)
Gain on sales of property, plant and equipment	(9,869)	(9,121)
Gain on sales of shares of subsidiaries and associates	(1,168)	(1,888)
Gain on step acquisitions	(1,295)	—
Interest and dividend income	(5,547)	(5,875)
Interest expense	21,404	20,985
(Increase) decrease in trade receivables	(237)	(88,721)
(Increase) decrease in inventories	44,629	(152,599)
Increase (decrease) in trade payables	(27,240)	86,511
Increase (decrease) in retirement benefit assets and liabilities, net	446	9,222
Others	71,695	45,566
Subtotal	501,799	404,611
Interest received	1,391	1,134
Dividends received	19,019	14,204
Interest paid	(19,891)	(20,250)
Income tax (paid) received, net	(35,185)	(52,828)
Net cash provided by (used in) operating activities	467,133	346,871
Cash flows from investing activities:		
Purchase of property, plant and equipment	(246,410)	(244,851)
Proceeds from sales of property, plant and equipment	15,843	24,707
Purchase of intangible assets	(10,606)	(12,814)
Purchase of other financial assets	(3,106)	(4,070)
Proceeds from sales/redemption of other financial assets	76,982	38,988
Purchase of investments in subsidiaries (Note 5)	(28,677)	(6,501)
Proceeds from sales of investments in subsidiaries	3,020	0
Payments for transfer of businesses	(983)	(700)
Proceeds from transfer of businesses	1,747	81,901
Net (increase) decrease in time deposits	5,708	476
Others (Note 5)	(30,528)	(5,917)
Net cash provided by (used in) investing activities	(217,010)	(128,781)

Cash flows from financing activities:		
Net increase (decrease) in short-term borrowings	(115,453)	(89,129)
Net increase (decrease) in commercial papers	(3,000)	(60,000)
Proceeds from long-term borrowings	301,531	66,162
Repayment of long-term borrowings	(171,789)	(130,246)
Proceeds from issuance of bonds	69,640	94,636
Redemption of bonds	(55,000)	(125,000)
Repayment of lease liabilities	(30,349)	(32,349)
Net (increase) decrease in treasury stock	(19)	(27)
Dividends paid to owners of the parent	(34,091)	(38,367)
Dividends paid to non-controlling interests	(11,007)	(15,810)
Payment for acquisition of subsidiaries' interests from non-controlling interests	(98,779)	(512)
Proceeds from stock issuance to non-controlling interests	4,404	1
Repayments to non-controlling interests	—	(5,600)
Others	1,139	(42)
Net cash provided by (used in) financing activities	(142,773)	(336,283)
Effect of exchange rate changes on cash and cash equivalents		
	13,094	14,276
Net increase (decrease) in cash and cash equivalents	120,444	(103,917)
Cash and cash equivalents at the beginning of the period	228,211	349,577
Net increase (decrease) in cash and cash equivalents resulting from transfer to assets held for sale	49	(137)
Net increase (decrease) in cash and cash equivalents resulting from change in scope of consolidation	854	266
Net increase in cash and cash equivalents resulting from merger and acquisition	19	—
Cash and cash equivalents at the end of the period (Note 21)	¥349,577	¥245,789

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

Notes to Consolidated Financial Statements

Mitsubishi Chemical Holdings Corporation and Consolidated Subsidiaries

Note 1

Reporting Entity

Mitsubishi Chemical Holdings Corporation (the “Company”) is a corporation domiciled in Japan, whose shares are listed on the Prime Market of the Tokyo Stock Exchange. The registered address of its Head Office is presented on its website (<https://www.mitsubishichem-hd.co.jp/>). The Company’s Consolidated Financial Statements for the fiscal year ended March 31, 2022 comprise those of the Company, its subsidiaries and associates, and interests under joint arrangements (collectively, the “Group”). The Group’s three principal domains are Performance Products, Industrial Materials, and Health Care. Further details are presented in Note 4 Segment Information.

Mitsubishi Chemical Holdings Corporation plans to change its trade name to Mitsubishi Chemical Group Corporation, effective July 1, 2022.

Note 2

Basis of Presentation 1. Compliance with IFRS

The accompanying consolidated financial statements of the Group have been prepared in accordance with International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board. The provisions of Article 93 of the Ordinance on Terminology, Forms, and Preparation Methods of Consolidated Financial Statements apply, as the Company meets the requirements for a “Specified Company applying Designated International Financial Reporting Standards” prescribed in Article 1-2 of said ordinance.

2. Approval of Consolidated Financial Statements

The Group’s consolidated financial statements were approved on June 24, 2022, by Jean-Marc Gilson, Representative Corporate Executive Officer, President and Chief Executive Officer, and Yuko Nakahira, Executive Vice President, Chief Financial Officer.

3. Basis of Measurement

The consolidated financial statements are prepared on a historical cost basis, except for certain financial instruments measured at fair value presented in Note 3 Significant Accounting Policies.

4. Presentation Currency

The consolidated financial statements are presented in Japanese yen, which is the Company’s functional currency, rounded to the nearest million yen.

5. Use of Judgments, Estimates and Assumptions

Management has made a number of judgments, estimates and assumptions relating to the application of accounting policies, reporting of revenues, expenses, assets and liabilities in the preparation of the consolidated financial statements in accordance with IFRS. Actual results may differ from these estimates.

Estimates and underlying assumptions are continually evaluated. The effect of changes to accounting estimates is recognized in the reporting period in which the revision was made and in future periods.

Information regarding judgments, estimates, and assumptions used in applying accounting policies that could materially affect the Group’s consolidated financial statements is included in the following notes:

- Impairment of Non-Financial Assets (Note 13, Goodwill and Intangible Assets, Note 14, Property, Plant and Equipment and Note 15, Impairment Losses)
- Recoverability of Deferred Tax Assets (Note 11, Income Taxes)
- Measurement of Defined Benefit Obligations (Note 27, Retirement Benefits)
- Fair Value of Financial Instruments (Note 35, Financial Instruments)

Significant assumptions used in making estimates for the fiscal year ended March 31, 2022 include the following.

(Assumptions relating to the impacts of the COVID-19 pandemic)

The impact of the COVID-19 pandemic has abated due to progression of vaccinations in Japan and other countries and expected to continue to further improve considering the government policies, and the recovery of the global economy in the future. While uncertainty remains, management estimates a limited impact of the COVID-19 pandemic from next fiscal year and beyond.

(Assumptions relating to the impacts of the current situation in Ukraine)

The direct impact of the current situation in Ukraine on the Group's business is immaterial. Management made no related assumptions in accounting estimates that would materially affect Group's financial results at the end of the fiscal year ended March 31, 2022.

6. Newly Applied Standards and Interpretations

The Group adopted standards and interpretations that became mandatory in the fiscal year ended March 31, 2022. However, these did not materially affect its consolidated financial statements.

7. New Standards and Interpretations Not Yet Applied

As of the reporting date, the Group did not apply new standards or interpretations issued by the approval date for the Consolidated Financial Statements, as their application was not mandatory and would not have materially affected the Group's Consolidated Financial Statements.

Note 3

Significant Accounting Policies

1. Basis of Consolidation

(1) Subsidiaries

Subsidiaries are entities controlled by the Group. The Group has control over an entity if it has exposure or rights to variable returns from its involvement with the investee and has the ability to affect those returns through its influence over the investee.

In preparing its consolidated financial statements, the Company based the financial statements of each Group company prepared as of the same closing date based on common Group accounting policies. Subsidiaries' financial statements are adjusted, if necessary, when their accounting policies differ from those of the Group.

The Group consolidates entities from the date on which it acquires control until the date on which it loses control.

All intergroup balances of outstanding receivables and obligations and unrealized gains and losses are eliminated on consolidation.

A change in ownership interest of a consolidated subsidiary, without a loss of control, is accounted for as an equity transaction. Differences between adjusted non-controlling interest amounts and fair value are recognized directly as equity attributable to owners of the parent.

In the event of a loss of control, the Group measures and recognizes any remaining investments at fair value. Any gain or loss arising from a loss of control is recognized in profit or loss.

Non-controlling interests in a subsidiary's net assets are recognized separately from those under the Group's control. The comprehensive income of consolidated subsidiaries is attributed to owners of the parent and non-controlling interests even if those results in the non-controlling interests having a deficit balance.

(2) Associates

Associates are entities in which the Group has significant influence over the financial and operational policies but does not have control or joint control. Normally, the Group is assumed to be able to exercise significant influence when it holds 20% to 50% ownership. Other factors considered in assessing whether or not the Group can exercise significant influence include sending any of its officers being on the Board of Directors. In such cases, the Group may be considered to be able to exercise significant influence over an associate even if its investment accounts for less than 20% of voting rights.

The Group accounts for investments in associates under the equity method. Such investments are recognized at cost upon acquisition. After acquisition, the Group's share

of the change in the net assets of associates is adjusted and recorded in the Consolidated Statement of Financial Position.

The consolidated financial statements reflect the Group's share of earnings in associates. If amounts recognized in other comprehensive income of associates change, the Group's share with respect to those changes is also recognized in other comprehensive income.

The Group's consolidated financial statements have been adjusted to eliminate its share in unrealized gains and losses arising from transactions between it and associates.

Associates prepare their financial statements for the same reporting period as the Group, adjusting their accounting policies to align with those of the Group.

In the event that the Group loses significant control over an associate, it assesses and recognizes the remaining investment at fair value as of the day on which it lost such influence. Gains and losses arising from the loss of significant influence are recognized in profit or loss.

In preparing the consolidated financial statements, the requirements of local laws and shareholder agreements made it effectively impossible to match reporting dates of all associates to that of the Group. For certain associates for which it was impracticable to provisionally settle accounts on the Group's reporting date owing to business or other factors, the Group uses relevant provisional financial statements for the period ending December 31. Significant transactions or events between the reporting dates of those associates and the consolidated closing date are reflected in the consolidated financial statements.

(3) Joint Arrangements

A joint arrangement is an arrangement in which unanimous consensus from the parties that have joint control of decision-making over related activities is required.

A joint venture is a joint agreement through which parties with joint control over an arrangement have rights to the net assets of an arrangement.

The Group uses the equity method to account for its equity interests in joint ventures.

A joint operation is one in which parties with joint control of an arrangement have rights to assets and obligations for liabilities relating to the joint arrangement.

If the Group holds an interest in a joint operation, the Group recognizes assets, liabilities, revenues and expenses generated from joint operating activities only to the extent of its interest. Inter-company transactions among the Group's companies as well as receivable and payable balances and unrealized gains and losses arising from such transactions are eliminated.

The principal joint operation is The Saudi Methacrylates Company, in which the Group and Saudi Arabia have a 50-50 interest. That company manufactures methyl methacrylate monomer, acrylic resin, and other offerings.

2. Business Combinations

The Group uses the acquisition method to account for business combinations.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the business combination occurs, the Group reports provisional amounts and adjusts the amounts in a measurement period that does not exceed one year from the acquisition date.

The Group measures the cost of an acquisition as the aggregate of the consideration transferred, measured at acquisition-date fair value and the amount of any non-controlling interest in the acquiree.

For each business combination, the Group measures components of non-controlling interests in the acquiree at fair value or the amounts of non-controlling interests in the acquiree's identifiable net assets.

The Group accounts for acquisition-related costs as expenses in the periods in which such costs are incurred.

When the Group acquires a business, the Group classifies or 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. In principle, the Group generally measures the identifiable assets acquired and the liabilities assumed at their acquisition-date fair values.

If a business combination is achieved in stages, the Group reassesses the equity of the acquiree before acquisition of control at fair value on the acquisition date, and recognizes the resulting gain or loss in profit or loss. The Group accounts for the equity interest of the acquiree booked in other comprehensive income before the acquisition on

the same basis as would be required if the Group had disposed directly of the previously held equity interest.

Goodwill is measured as the difference by which total value recognized as transferred consideration and non-controlling interests exceeds the net value of identifiable assets acquired and liabilities assumed.

If the total amount recognized as transferred consideration and non-controlling interests is less than net amount of identifiable assets acquired and liabilities assumed, the Group recognizes the difference as profit or loss.

After initial recognition, the Group does not amortize goodwill acquired through a business combination, but records goodwill at cost less any accumulated impairment loss. The Group conducts impairment tests annually or when there are indications of impairment.

3. Foreign Currency Translations

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

In addition, each company in the Group determines its individual functional currency and measures transactions using these functional currencies.

Foreign currency denominated transactions are translated into functional currencies at spot exchange rates as of the transaction dates or at similar rates.

Foreign currency monetary assets and liabilities are translated into the functional currency using the spot exchange rate on the date of end of the consolidated reporting period. Exchange differences arising from translations or settlement are recognized in profit or loss. However, exchange differences arising from financial instruments designated as hedging instruments of net investments in foreign operations (foreign subsidiaries, etc.), financial assets measured through other comprehensive income and cash flow hedges are recognized in other comprehensive income.

The Group translates assets and liabilities of foreign operations using the spot exchange rate at the end of the reporting period, and revenue and expenses using the spot exchange rate on the transaction date or an approximate rate in Japanese yen, respectively. The Group accounts for any exchange differences arising in such retranslation in other comprehensive income.

On the disposal of a foreign operation, accumulated exchange differences related to the foreign operation are recognized in profit or loss in the corresponding period of disposal.

4. Sales Revenue

The Group recognizes sales revenue based on the following five-step model in amounts reflecting the Group's anticipated entitlements in exchange for goods or services transferred to customers.

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 performance obligations in the contract

Step 5: Recognize revenue when (or as) the entity satisfies a performance obligation

The Group provides an array of products and services to customers in Japan and abroad through the principal business domains of Performance Products, Chemicals, Industrial Gases, and Health Care.

Regarding product sales in these businesses, once customers gain control over delivered products and it is determined that the performance obligations are met, sales revenue is recognized upon product delivery.

Sales revenue is measured at the amount of consideration promised in contracts with customers, net of discounts, rebates and returns.

Considerations in product sales contracts are generally collected within one year after control of products transfers to customer, and do not include significant financial elements.

5. Government Grants

Government grants are recognized at fair value when there is reasonable assurance that the Group will comply with grant terms and that the grant will be received.

Government grants related to income are recognized as income on a systematic basis over the periods in which the Group recognizes as expenses the related costs for which the grants are intended to compensate.

Government grants relating to assets are deducted from asset acquisition costs.

6. Borrowing Costs

The Group capitalizes borrowing costs that are directly attributable to the acquisition, construction or production of assets that require considerable time before use as intended or sale as part of the cost of that asset. The Group recognizes all other borrowing costs as expenses in periods incurred.

7. Income Taxes

The Group calculates current tax liabilities or assets for the current and prior periods as amounts that it expects to pay to or recover from taxation authorities. The Group uses tax rates and tax laws enacted or substantively enacted by the end of a reporting period to determine tax amounts.

The Group uses the asset and liability method to record deferred taxes for differences between carrying amounts of assets or liabilities on the accounts at the end of the reporting period and the tax basis (temporary differences).

In principle, the Group recognizes deferred tax liabilities for all future taxable temporary differences. Deferred tax assets are recognized to the extent that it is probable that taxable income will be available against which deductible temporary differences and for tax credits and tax loss carryforwards can be used.

As exceptions, however, the Group does not recognize deferred tax assets or deferred tax liabilities for the following temporary differences:

- The initial recognition of goodwill
- The initial recognition of assets or liabilities in transactions that are not business combinations and do not affect profits in the accounts at the time of transactions or taxable profits or losses.
- Deductible temporary differences arising from investments in subsidiaries and associates, and interests in joint ventures to the extent that it is probable that the temporary difference will not reverse in the foreseeable future or it is not probable that future taxable profits will be available against which they can be utilized.
- Taxable temporary differences arising from investments in subsidiaries and associates, and interests in joint ventures to the extent that the timing of the reversal of the temporary difference is controlled and that it is probable the temporary difference will not reverse in the foreseeable future.

The Group reviews the carrying amount of deferred tax assets and liabilities (including unrecognized deferred tax assets) at the end of each reporting period. The Group calculates deferred tax assets and liabilities based on tax rates and tax laws that have been enacted or substantively enacted by the end of the reporting period, estimating tax rates at the time assets materialize or liabilities are settled.

8. Earnings per Share

The Company calculates basic earnings per share by dividing the net income attributable to ordinary shareholders by the weighted average number of ordinary shares, adjusted for treasury stock during that period. The Company calculates diluted earnings per share by adjusting the effects of all potentially dilutive shares.

9. Cash and Cash Equivalents

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

10. Inventories

The cost of inventories comprises all purchase costs, processing costs, and all costs incurred in bringing the inventories to their present location and condition.

Inventories are measured at the lower of acquisition cost and net realizable value. The Group mainly uses the weighted average cost formula to calculate costs. The Group calculates net realizable value by deducting the estimated selling price in the ordinary course of business from the estimated costs required to make a sale.

11. Assets Held for Sale and Discontinued Operations

The Group classifies a non-current asset (or disposal group) as held for sale if its carrying amount is expected to be recovered principally through a sale transaction rather than through continuing use. This applies only if the asset (or disposal group) is available for immediate sale in its present condition and a sale is highly probable within one year. The Group measures a non-current asset (or disposal group) classified as held for sale at the lower of the carrying amount and fair value, less the cost to sell.

The Group does not depreciate or amortize property, plant and equipment or intangible assets classified as held for sale.

Discontinued operations include units that have been disposed of or are classified as held for sale. The Group recognizes an operation as discontinued if it is a Group business and is scheduled for disposal.

12. Property, Plant and Equipment

The Group applies the cost model to measure property, plant and equipment.

The Group carries property, plant and equipment at acquisition cost less accumulated depreciation and accumulated impairment losses.

The acquisition cost includes direct costs of acquisition, estimated costs of dismantlement, removal and restoration, and borrowing costs that satisfy capitalization criteria.

Except for land, property, plant and equipment, less the residual value at the end of the reporting term, is depreciated using the straight-line method.

Depreciation is computed over the following estimated useful lives for the following major classes of assets:

Buildings and structures	3 to 50 years
Machinery, equipment and vehicles	2 to 22 years
Tools, furniture and fixtures	2 to 25 years

13. Intangible Assets

The Group uses the cost model to measure intangible assets.

Intangible assets are stated at acquisition cost less accumulated amortization and impairment losses.

Separately acquired intangible assets are initially recognized at cost. The acquisition cost of an intangible asset acquired in a business combination is measured at fair value at the acquisition date.

Expenditure on an internally generated intangible asset is recognized as an expense when it is incurred, excluding development expenditures that satisfy the criteria for capitalization.

The Group amortizes intangible assets with finite useful lives on a straight-line basis over their useful lives. It tests intangible assets when there are indications of impairment. Amortization periods and methods for intangible assets with finite useful lives are reviewed at year-end. Any changes are applied to the future as changes in accounting estimates.

Amortization is over the following estimated useful lives for the following major classes of intangible assets:

Technology-related intangible assets	4 to 22 years
Customer-related intangible assets	5 to 30 years
Software	3 to 5 years

The Group does not amortize intangible assets with indefinite useful lives, and conducts impairment tests individually or by cash-generating unit (or groups of cash-generating units) annually, and whenever there are indications of impairment.

14. Impairment of Assets

(1) Impairment of Non-Financial Assets

The Group assesses whether indications of asset impairment exist at the end of each reporting period. If there are such indications and annual impairment testing is necessary, the Group estimates recoverable amounts, which are the higher amount of fair value less costs of disposal and value in use. If a recoverable amount of an asset cannot be estimated, the Group estimates the recoverable amount of each cash-generating unit or group of cash-generating units of the asset class. If the carrying

amount of an asset exceeds its recoverable amount, the Group recognizes impairment losses and reduces the carrying amount of the asset to its recoverable amount. In measuring value in use, the Group determines the present value of cash flow projections, discounted by pre-tax rates reflecting current market assessments of the time value of money and risks specific to the asset. The Group estimates cash flow projections using a business plan for five years or less, in principle. Cash flow projections beyond the business plan period use long-term-average growth rates according to individual circumstances.

The Group uses an appropriate valuation model supported by an available fair value index to measure fair value less costs of disposal.

The Group allocates goodwill after acquisition dates to individual or groups of cash generating units expected to benefit from corporate combination synergies.

For goodwill, intangible assets with indefinite useful lives and intangible assets not yet available for use, the Group tests for impairment annually and when there are indications of impairment.

(2) Reversal of Impairment Loss

For assets other than goodwill, at the end of each reporting period the Group evaluates whether assumptions used to measure recoverable amounts have changed for impairment losses recognized in prior periods and if there are indications that such losses have decreased or disappeared.

If such indications exist, the Group reverses impairment losses if recoverable amounts exceed the Group's carrying amounts of assets or cash-generating units. Any reversal is limited to the lower of the estimated recoverable amount or the carrying value that would have been determined, net of accumulated depreciation, had no impairment loss been recognized in prior periods.

Impairment loss reversals are recognized in profit or loss.

Goodwill impairment losses are not reversed.

15. Leases

When transferring the right to control the use of assets specified in lease contracts in exchange for consideration over a certain period, the Group recognizes lease transactions and the right-of-use assets and lease liabilities as of the commencement date of the lease. Determining whether an arrangement is, or contains, a lease is based on the substance of an arrangement regardless of whether it takes the legal form of a lease.

Lease liabilities are measured as the discounted present value of unsettled portions of lease payments at the lease commencement date. Right-of-use assets are initially measured by adjusting initial direct costs, prepaid lease fees, and other charges for lease liabilities, adding costs for the obligation to restore to original condition and other requirements based on lease contracts.

Lease payments are allocated to the repayment portion of the net financial expenses and lease liabilities so the amount produces a constant periodic rate of interest on the remaining balance of the lease liability, with financial expenses being recognized in profit or loss.

Right-of-use assets are depreciated over their service lives where ownership of the underlying assets transfer to the lessees by the end of lease periods or where the costs of right-of-use assets reflect the exercise of purchase options. In other cases, assets are depreciated systematically over the shorter of service lives or lease periods.

For leases ending within 12 months or leases for which the underlying asset is of low value, related lease payments are systematically recognized as costs over the lease periods.

16. Provisions

A provision is recognized when the Group has a present obligation (legal or constructive) 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 the amount of the obligation can be estimated reliably.

Where the effect of the time value of money is material, the provision is measured at the present value of the expenditures expected to be required to settle obligations. The discount rate used in measuring the present value is a pre-tax rate that reflects current market assessments of the time value of money and risks inherent in the liability.

17. Retirement Benefits

The Group operates a defined benefit plan and defined contribution plan as employee retirement benefit plans.

The Group uses the projected unit credit method to determine the present value of its defined benefit obligations and the related current and past service costs for each plan.

The rate used to discount post-employment benefit obligations is determined by referring to market yields at the end of the reporting period on high quality corporate bonds.

The fair value of any plan assets is deducted from the present value of the defined benefit obligation in determining the amount of the net defined benefit liabilities or assets of defined benefit plans.

Remeasurements of liabilities and assets associated with defined benefit retirement plans are recognized in other comprehensive income in the period incurred and immediately reflected in retained earnings. Prior service costs are recognized as expenses in the periods incurred.

The Group recognizes contributions payable to defined contribution plans as expenses at the time of contribution.

18. Capital

(1) Ordinary Shares

The Company allocated the issue price of ordinary shares between common stock and additional paid-in capital.

(2) Treasury Stock

Acquired treasury stock is recognized at cost and deducted from equity, while the difference between the carrying value of treasury stock and its value at the time of sale is recognized in additional paid-in capital.

19. Share-Based Payment

The Company and some subsidiaries employ equity-settled share-based compensation plans.

Under such plans, services received are measured at fair value as of the date capital financial instruments are granted. If granted capital financial instruments are immediately determined, all services received on the grant date is recognized as expenses, that amount being recognized as an increase in equity. If granted capital financial instruments are determined after a certain period of time, they are recognized as expenses over the vesting period from the date granted, that amount being recognized as an increase in equity.

20. Financial Instruments

(1) Financial Assets (Except Derivatives)

(i) Initial Recognition and Measurement

The Group initially recognizes trade receivables upon fulfilling its performance obligations and acquiring unconditional rights to consideration in accordance with IFRS 15 (Revenue from Contracts with Customers). The Group initially recognizes all other financial assets on the transaction dates on which the Group becomes a contract party.

Financial assets are classified as financial assets measured at fair value through profit or loss or other comprehensive income and financial assets measured at amortized cost. The Group determines classifications at initial recognition.

Debt financial instruments are classified as financial assets measured at amortized cost if both of the following conditions are met.

- Financial assets are based on a business model where the aim is to hold financial assets to collect contractual cash flows
- Contractual terms of financial assets give rise on specified dates to cash flows that are solely payments of principal and interest on principal amounts outstanding

Debt financial instruments meeting the following conditions and measured at fair value are classified as financial assets measured at fair value through other comprehensive income. Otherwise, they are classified as financial assets measured at fair value through profit or loss.

- Financial assets are based on a business model where the aim is to hold financial assets to collect contractual cash flows and sell assets
- Contractual terms of financial assets give rise on specified dates to cash flows that are solely payments of principal and interest on principal amounts

outstanding

Equity instruments other than those for trading purpose are designated as measured at fair value through profit or loss or as measured at fair value through other comprehensive income. Such designations are applied subsequently on a consistent basis.

Except for financial assets measured at fair value through profit or loss, financial instruments are measured at fair value plus transaction costs attributable directly to them.

(ii) Subsequent Measurements

After initial recognition, financial assets are measured based on the following classifications:

(a) Financial Assets Measured at Amortized Cost

Financial assets measured at amortized cost are measured at amortized cost using the effective interest method.

(b) Other Financial Assets

Financial assets other than those measured at amortized cost are measured at fair value.

Changes in the fair value of financial assets measured at fair value are recognized in profit or loss or in other comprehensive income.

Changes in the fair value of equity instruments designated as measured at fair value through other comprehensive income are recognized in other comprehensive income and the amount in other comprehensive income is transferred to retained earnings when equity instruments are derecognized or when the fair value of equity instruments declines significantly.

(iii) Derecognition

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

If the Group neither transfers nor retains substantially all the risks and rewards of ownership of a transferred asset and retains control of the transferred asset, the Group recognizes the residual interest in the transferred asset and the associated liability to be payable to the extent of the Group's continuing involvement.

(iv) Impairment

At each closing date, the Group assesses whether the credit risk on a financial asset or a financial asset group measured at amortized cost or a financial guarantee contract has increased significantly since initially recognizing the impairment of a financial asset or financial guarantee contract.

If, at the closing date, the credit risk of a financial asset or a financial asset group has not increased significantly since initial recognition, the Group measures the loss allowance for that financial asset at an amount equal to 12-month expected credit losses. However, the Group recognizes the expected credit losses of trade receivables over the remaining period from the initial recognition.

If a credit risk has increased significantly since initial recognition, the Group recognizes an expected credit loss over the remaining period as a loss allowance.

The Group assesses whether the credit risk has increased significantly using the change in the risk of default, and assesses whether the default risk has changed mainly using delinquent (past due information).

The Group measures a credit loss using the discounted present value of the difference between the contractual amount receivable and the estimate amount receivable based on the past credit loss.

(2) Financial Liabilities (Except Derivatives)

(i) Initial Recognition and Measurement

Financial liabilities are classified into financial liabilities measured at fair value through profit or loss and financial liabilities measured at amortized cost. The Group determines classifications at initial recognition.

Although all financial liabilities are measured at fair value at initial recognition, financial liabilities measured at amortized cost are measured at cost after deducting, from the fair value, transaction costs that are directly attributable to the financial liabilities.

(ii) Subsequent Measurement

After initial recognition, financial liabilities are measured based on classifications as follows:

(a) Financial Liabilities Measured at Fair Value through Profit or Loss

Financial liabilities measured at fair value through profit or loss are measured at fair value. After initial recognition, portions of changes in fair value attributed to the change in credit risk of the Group are recognized in other comprehensive income, and the balance is recognized in profit or loss.

(b) Financial Liabilities Measured at Amortized Cost

After initial recognition, financial liabilities measured at amortized cost are measured at amortized cost using the effective interest method. Amortization under the effective interest method and gains or losses on derecognition is recognized in profit or loss.

(iii) Derecognition

Financial liabilities are derecognized when the obligation is discharged, canceled or expired, or when they are exchanged with substantially different terms or their terms are modified substantially.

(3) Complex Financial Instruments

The Group measures and initially recognizes hybrid financial instrument liabilities at the fair value of similar liabilities that do not have equity conversion options. Equity is measured and initially recognized at fair value after deducting the fair value of the liabilities of complex financial instruments overall. Direct transaction costs are allocated according to initial carrying amount ratio of liabilities and equity. After initial recognition, complex financial instruments liabilities are measured at amortized cost using the effective interest method. The Company does not remeasure complex financial instrument equity after initial recognition.

(4) Offsetting of Financial Instruments

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

(5) Derivatives and Hedge Accounting

The Group uses derivatives, including forward foreign exchange contracts and interest rate swap contracts, to hedge foreign exchange and interest rate risks. These derivatives are initially measured at fair value when contracts are entered into and are subsequently remeasured at fair value.

Changes in the fair value of derivatives are recognized in profit or loss, although gains or losses on hedging instruments relating to the effective portions of cash flow hedges and hedges of net investments in foreign operations are recognized in other comprehensive income.

At the inception of hedging relationships, the Group formally designates and documents relationships to which hedge accounting applies and the objectives and strategies of risk management for undertaking the hedges. The documentation includes identifying hedging instruments, the hedged items or transactions, the nature of the risks being hedged and how the hedging instrument effectiveness (including its analysis of the sources of hedge ineffectiveness and how it determines the hedge ratio) is assessed in offsetting the exposure to changes in hedged item fair value or cash flows attributable to hedged risks. When designating a hedging relationship and on an ongoing basis, the Group analyses whether a derivative used to a hedge transaction is effective to offset the change in the fair value or the cash flow of a hedged item. The Group specifically determines that a hedge is effective when the economic relationship between the hedged item and the hedging instrument is offset.

Hedges that meet the requirements for hedge accounting are classified in the following categories and accounted for in accordance with IFRS 9 "Financial Instruments".

(a) Fair Value Hedges

Changes in the fair value of derivatives are recognized in profit or loss. For changes in the fair value of hedged items attributable to the hedged risks, carrying amounts of hedged items are adjusted, with changes recognized in profit or loss.

(b) Cash Flow Hedges

The effective portion of gains or losses on hedging instruments is recognized in other comprehensive income, while the ineffective portion is recognized immediately in profit or loss.

Hedging instrument amounts recognized in other comprehensive income are reclassified to profit or loss when the transactions of the hedged items affect profit or loss. Where hedged items result in the recognition of non-financial assets or liabilities, the amounts recognized in other comprehensive income are accounted for as adjustments to the original carrying amount of non-financial assets or liabilities.

When forecast transactions are no longer expected to occur, any related cumulative gain or loss that has been recognized in equity as other comprehensive income is reclassified to profit or loss. When hedging instruments expire, are sold, terminated or exercised without the replacement or rollover of other hedging instruments, or when the hedge designation is revoked due to change in the risk management objective, accumulated amounts that have been recognized in other comprehensive income continue to be recognized in other comprehensive income until the forecast transactions occur.

(c) Hedges of Net Investments in Foreign Operations

Hedges of net investments in foreign operations are accounted for similarly to cash flow hedges. The effective portion of gains or losses on hedging instruments is recognized in other comprehensive income. The ineffective portion is recognized in profit or loss. At the time of the disposal of the foreign operations, any related cumulative gain or loss recognized in equity as other comprehensive income is reclassified to profit or loss.

(6) Fair Value of Financial Instruments

The fair value of financial instruments that are traded in active financial markets at the fiscal year-end refers to quoted prices or dealer quotations.

If there is no active market, the fair value of financial instruments is determined referring to appropriate valuation models or prices presented by related financial institutions.

Note 4

Segment Information

1. Overview of Reporting Segments

The Group's reporting segments are the components for which separate financial information is available, and the Board of Directors regularly assesses this information in deciding how to allocate resources and evaluate results. No operating segments or components have been aggregated in preparing the reporting segment information.

The Group operates in four business areas. The business segments are Performance Products, Chemicals, Industrial Gases, and Health Care.

The businesses in each reporting segment are as follows.

In addition, from the first quarter of the year ending March 31, 2022, in tandem with building an organizational structure that conforms to growth business domains in KAITEKI Vision 30, the Medium-to long-term basic management strategy, the conventional breakdown of performance products into two classifications, functional products and performance chemicals, was changed into three classifications, polymers and compounds, films and molding materials, and advanced solutions.

Business Domains	Business Segments	Sub Business Segments		
		Businesses		
Performance Products	Performance Products	Polymers & Compounds	Polymers	Performance Polymers, Sustainable Polymers, and Acetyl Polymers
			Coating & Additives	Coating Materials, Additives & Fine
		Films & Molding Materials	Films	Packaging, Industrial Films, and Polyester Film
			Molding Materials	Carbon Fiber, Advanced Materials, and Alumina & Fiber
		Advanced Solutions	Amenity Life	Aqua & Infrastructure and Life Solutions
			Information & Electronics	Semiconductor, Electronics, and Battery Materials
Industrial Materials	Chemicals	MMA	MMA	MMA
		Petrochemicals	Petrochemicals	Basic Petrochemicals, Polyolefins, and Basic Chemical Derivatives
		Carbon Products	Carbon Products	Carbon Products
	Industrial Gases			Industrial Gases
Health Care	Health Care			Ethical Pharmaceuticals
				Life Science

Accounting policies for reportable segments are identical to those Group accounting policies stated in Note 3, Significant Accounting Policies. Inter-segment sales and transfers are based mainly on prevailing market prices.

2. Revenues and Operating Results for the Group's Reporting Segments

The Group evaluates results based on segment profits.

Fiscal year ended March 31, 2021

Millions of yen

	REPORTING SEGMENT					Others (Note 1)	Subtotal	Adjustments (Note 2)	Consolidated
	Performance Products	Chemicals	Industrial Gases	Health Care	Total				
Sales revenue									
External revenue	¥ 994,647	¥ 891,134	¥ 811,756	¥ 390,569	¥3,088,106	¥ 169,429	¥3,257,535	¥ —	¥3,257,535
Inter-segment revenue	57,704	43,901	6,482	501	108,588	202,499	311,087	(311,087)	—
Total	¥1,052,351	¥ 935,035	¥818,238	¥ 391,070	¥3,196,694	¥ 371,928	¥3,568,622	¥ (311,087)	¥3,257,535
Segment profit (loss)									
Core operating income (Note 3)	¥ 59,708	¥ 15,790	¥ 85,066	¥ 17,911	¥ 178,475	¥ 11,906	¥ 190,381	¥ (15,671)	¥ 174,710
Segment assets	1,312,931	1,092,977	1,909,229	1,093,716	5,408,853	1,042,595	6,451,448	(1,164,220)	5,287,228
Other items									
Depreciation and amortization	64,842	63,259	88,720	16,417	233,238	6,830	240,068	3,725	243,793
Share of profit of investments accounted for using the equity method	6,662	3,169	2,843	135	12,809	72	12,881	—	12,881
Investments accounted for using the equity method	52,883	59,033	32,179	16,314	160,409	1,633	162,042	—	162,042
Capital expenditures	90,317	72,756	69,607	20,942	253,622	4,895	258,517	5,198	263,715

Notes:

- The Others category consists of businesses not included in reporting segments and mainly includes engineering, transportation, and warehousing operations.
- The segment profit (loss) adjustment includes corporate costs of ¥(14,627) million not allocated to reporting segments and inter-segment eliminations of ¥(1,044) million. Corporate costs include expenditures on basic testing, research, and other activities not allocated to reporting segments.
The segment assets adjustment includes corporate assets of ¥107,142 million not allocated to reporting segments and inter-segment eliminations of ¥(1,271,362) million. Corporate assets include financial assets not allocated to reporting segments. Intersegment elimination transactions mainly comprise cash management system-based loan eliminations.
- Segment profit (loss) is Operating profit in accordance with IFRS after excluding earnings from non-recurring factors, such as losses from business withdrawals and downsizings, representing core operating income.

Fiscal year ended March 31, 2022

Millions of yen

	REPORTING SEGMENT					Others (Note 1)	Subtotal	Adjustments (Note 2)	Consolidated
	Performance Products	Chemicals	Industrial Gases	Health Care	Total				
Sales revenue									
External revenue	¥1,136,341	¥1,287,915	¥ 950,111	¥ 403,638	¥3,778,005	¥198,943	¥3,976,948	¥ —	¥3,976,948
Inter-segment revenue	52,497	43,816	7,008	410	103,731	205,510	309,241	(309,241)	—
Total	¥1,188,838	¥1,331,731	¥ 957,119	¥ 404,048	¥3,881,736	¥404,453	¥4,286,189	¥ (309,241)	¥3,976,948
Segment profit (loss)									
Core operating income (Note 3)	¥ 78,724	¥ 102,163	¥ 98,921	¥ (6,974)	¥ 272,834	¥ 15,048	¥ 287,882	¥ (15,540)	¥ 272,342
Segment assets	1,407,640	1,287,479	2,041,434	1,074,234	5,810,787	948,502	6,759,289	(1,185,418)	5,573,871
Other items									
Depreciation and amortization	67,312	62,621	94,774	15,466	240,173	6,412	246,585	4,884	251,469
Share of profit of investments accounted for using the equity method	12,113	5,407	3,684	95	21,299	67	21,366	—	21,366
Investments accounted for using the equity method	62,607	58,306	35,584	16,299	172,796	1,995	174,791	—	174,791
Capital expenditures	68,652	61,344	74,661	19,504	224,161	3,539	227,700	26,889	254,589

Notes:

- The Others category consists of businesses not included in reporting segments and mainly includes engineering, transportation, and warehousing operations.
- The segment profit (loss) adjustment includes corporate costs of ¥(14,345) million not allocated to reporting segments and inter-segment eliminations of ¥(1,195) million. Corporate costs include expenditures on basic testing, research, and other activities not allocated to reporting segments.
The segment assets adjustment includes corporate assets of ¥76,323 million not allocated to reporting segments and inter-segment eliminations of ¥(1,261,741) million. Corporate assets include financial assets not allocated to reporting segments. Intersegment elimination transactions mainly comprise cash management system-based loan eliminations.
- Segment profit (loss) is Operating profit in accordance with IFRS after excluding earnings from non-recurring factors, such as losses from business withdrawals and downsizings, representing core operating income.

4. From the first quarter of the fiscal year ended March 31, 2022, the Company reviewed segments of some businesses and consolidated subsidiaries. The Company prepared segment information for the fiscal year ended March 31, 2021, in line with new segmentation.

Adjustments to income before tax from segment operating results are as follows:

	Millions of yen	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Segment operating results	¥174,710	¥272,342
Gain on business transfer (Note 1)	1,428	60,838
Gain on sales of property, plant and equipment	8,644	8,641
Gain on sales of shares of subsidiaries and associates	1,157	1,886
Gains on arbitration award	4,099	—
Share of profit of associates and joint ventures	2,759	—
Gain on step acquisitions	1,295	—
Impairment loss (Note 2)	(118,291)	(20,391)
Loss on sales and disposal of fixed assets	(6,218)	(7,417)
Loss on revision of retirement benefit plan	—	(4,027)
Special retirement expenses	(5,473)	(2,571)
Loss on liquidation of subsidiaries and affiliates	(7,379)	(270)
Provision for loss related to plant closure	(3,318)	—
Cancellation penalty	(1,934)	—
Others	(3,961)	(5,837)
Operating income	47,518	303,194
Financial income	8,252	9,368
Financial expenses	(22,862)	(22,192)
Income before taxes	¥32,908	¥290,370

Notes:

- Note 9 Other Operating Income and Other Operating Expenses details the gain on business transfer.
- See Note 15 Impairment Losses for details.

3. Geographic Information

The breakdown of external sales revenue and non-current assets is as follows:

External sales revenue

	Millions of yen	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Japan	¥1,792,668	¥2,116,326
Asia and Oceania	639,976	767,275
(China)	(279,730)	(299,016)
North America	414,766	525,964
Europe	387,065	520,552
Others	23,060	46,831
Total	¥3,257,535	¥3,976,948

Note: Sales revenue is classified by country or region according to the locations of sales destinations.

Non-current assets

	Millions of yen	
	As of March 31, 2021	As of March 31, 2022
Japan	¥1,249,694	¥1,226,726
Asia and Oceania	361,480	393,839
North America	499,634	554,098
Europe	826,213	873,187
Others	12,448	14,823
Total	¥2,949,469	¥3,062,673

Note:

Non-current assets are based on the locations of the assets and do not include financial instruments, deferred tax assets and retirement benefit asset.

4. Information about Major Customers

This information has been omitted because no external customers account for more than 10% of sales revenue.

Note 5

Business Combinations

Fiscal year ended March 31, 2021

Acquisition of Gelest by Mitsubishi Chemical America

On October 1, 2020, consolidated subsidiary Mitsubishi Chemical Corporation, through its subsidiary Mitsubishi Chemical America, Inc., acquired all of the shares of Gelest Intermediate Holdings, Inc., which holds a controlling interest in Gelest, Inc., to acquire the latter company, which manufactures silicon chemicals and metal-organic compounds. Gelest accordingly became a consolidated subsidiary.

(1) Overview of business combination

1. Names and business descriptions of acquired companies

Name: Gelest, Inc., and 12 companies

Description of business: Develops, manufactures, and sells silicon chemicals, specialty acrylates, metal-organic compounds, and other products

2. Main reason for business combination

Combining Gelest's expertise in silicon chemicals and metal compounds with the Group's technologies, resources, and customer network should significantly broaden the Company's solutions. The Company will continue to bolster its technology platform and pursue further growth through extensive R&D and business development in life sciences, electronics, and other growth markets.

3. Acquisition date

October 1, 2020

4. Legal form of acquisition

Acquisition of shares for cash

5. Percentage of voting rights acquired

100%

(2) Fair value of consideration transferred

	Millions of yen
	Acquisition date (October 1, 2020)
Cash	¥28,198
Cost of acquisition (Note)	¥28,198

Note:

Although price adjustments after the share acquisition had not been completed in the third quarter of the fiscal year ended March 31, 2021, these adjustments were completed in the fourth quarter, for the above amount. As well as paying cash for the acquisition, the Group extended a cash loan of ¥23,754 million to the acquired company. That loan is included in "Other" under net cash provided by (used in) investing activities in the Consolidated Statement of Cash Flows for the fiscal year ended March 31, 2021. The acquired company used that loan to repay its liabilities.

(3) Assets acquired, liabilities assumed, and goodwill

	Millions of yen
	Acquisition date (October 1, 2020)
Current assets:	
Cash and cash equivalents	¥ 640
Trade receivables	1,822
Inventories	6,756
Others	6
Non-current assets:	
Property, plant and equipment	5,973
Intangible assets (Note 1)	30,783
Others	387
Acquired assets	46,367
Current liabilities:	
Borrowings	23,754
Others	713
Non-current liabilities:	
Deferred tax liabilities	7,813
Others	239
Liabilities assumed	32,519
Net assets acquired and liabilities assumed	13,848
Goodwill (Note 2)	14,350

Notes

1. Composition of intangible assets
Intangible assets mainly comprised ¥27,548 million in technology-related intangible assets.
2. Goodwill
Goodwill mainly comprises anticipated synergies and excess earnings capabilities arising from acquisition that do not match specific recognition criteria. Goodwill is not deductible for tax purposes
In view of extensive envisaged synergies from this business combination, the Company allocated related goodwill to multiple cash-generating unit groups in the Performance Products and Chemicals segments.
3. Although the Company provisionally accounted for the transaction in the third quarter of the fiscal year ended March 31, 2021, it completed the initial accounting for the business combination in the fourth quarter.

(4) Acquisition-related expenses

Acquisition-related expenses totaled ¥1,803 million, of which ¥1,603 million was included in Selling, general and administrative expenses and Financial expenses in the consolidated statement of income for the fiscal year ended March 31, 2021.

(5) Impact on Group business results

The Company has not presented profit or loss information since the acquisition date and pro forma information on the assumption that the business combination took place on April 1, 2020, the start of the year under review, because the impact on the consolidated financial statements was immaterial.

Fiscal year ended March 31, 2022

There were no significant business combinations in the fiscal year ended March 31, 2022.

Note 6

Sales Revenue

(1) Disaggregation of sales revenue

The Group undertakes diverse operations overseas through its Performance Products, Chemicals, Industrial Gases, and Health Care reporting segments, which regularly submit regional sales reports to management. The relationship between geographic and segment revenue described in Note 4 Segment Information is as follows.

Fiscal year ended March 31, 2021

	Millions of yen						Total
	Japan	Asia and Oceania (China)		North America	Europe	Others	
Performance Products	¥ 492,213	¥204,421	¥(101,297)	¥140,103	¥147,933	¥ 9,977	¥ 994,647
Chemicals	531,297	236,342	(105,934)	59,324	52,782	11,389	891,134
Industrial Gases	345,680	120,418	(23,253)	180,571	164,079	1,008	811,756
Health Care	322,979	25,304	(6,648)	31,484	10,479	323	390,569
Others	100,499	53,491	(42,598)	3,284	11,792	363	169,429
Total	¥1,792,668	¥639,976	¥(279,730)	¥414,766	¥387,065	¥23,060	¥3,257,535

Notes:

1. Amounts are shown as sales revenue from external customers.
2. Sales revenue is mostly recognized from contracts with customers. Sales revenue recognized from other sources is immaterial.

Fiscal year ended March 31, 2022

	Millions of yen						Total
	Japan	Asia and Oceania (China)		North America	Europe	Others	
Performance Products	¥ 530,239	¥222,908	¥(111,829)	¥186,693	¥184,446	¥12,055	¥1,136,341
Chemicals	750,452	316,027	(106,813)	87,996	100,420	33,020	1,287,915
Industrial Gases	377,331	143,487	(27,848)	214,213	213,886	1,194	950,111
Health Care	329,728	30,745	(8,633)	32,329	10,514	322	403,638
Others	128,576	54,108	(43,893)	4,733	11,286	240	198,943
Total	¥2,116,326	¥767,275	¥(299,016)	¥525,964	¥520,552	¥46,831	¥3,976,948

Notes:

1. Amounts are shown as sales revenue from external customers.
2. Sales revenue is mostly recognized from contracts with customers. Sales revenue recognized from other sources is immaterial.

Performance Products Segment

This segment encompasses Polymers & Compounds (Polymers and Coating & Additives), Films & Molding Materials (Films and Molding Materials), and Advanced Solutions (Amenity Life and Information & Electronics). We sell to domestic and overseas customers. Principal businesses are described in Note 4 Segment Information.

Once customers gain control over products, when products are delivered to customer-designated locations, the legal title and physical possession of products and significant risks associated with product possession and rewards have been transferred, and we accordingly determine at that stage that we have satisfied our performance obligations and recognize sales revenue. Sales revenue from selling these products is measured at transaction prices relating to agreements with customers.

Sales revenue is measured at the amount of consideration promised in contracts with customers, net of discounts, rebates and returns. Rebates and other estimates use the most frequent techniques based on experience. Sales revenue is recognized only to the extent of no possibility of a significant reversal. Considerations in product sales contracts are generally collected within one year after control of products transfers to customer, and do not include significant financial elements.

Chemicals Segment

In the Chemicals segment, we conduct the MMA, petrochemicals, and carbon products businesses, and sell to domestic and overseas customers. Principal businesses are described in Note 4 Segment Information.

Upon satisfying performance obligations in selling products in these businesses, calculations of transaction prices and payment terms are identical to those of the Performance Products segment.

Industrial Gases Segment

In this segment, our gas business serves the steel, chemical and electronics industries. We manufacture such household items as stainless steel thermoses. We sell to domestic and overseas customers.

Upon satisfying performance obligations in selling products in these businesses, calculations of transaction prices and payment terms are identical to those of the Performance Products segment.

Health Care Segment

Here, we engage in the ethical pharmaceuticals business (researching and developing and manufacturing ethical pharmaceuticals) and the life science business (manufacturing of active pharmaceutical ingredients and intermediates), selling to domestic and foreign customers.

Upon fulfilling performance obligations in selling products in these businesses, calculations of transaction prices and payment terms are identical to those of the Performance Products segment.

Royalty income generated in the Health Care business is from contracts in which the Group has permitted third parties to produce or sell products or use technology. One-off contract payments are recognized as sales revenue when performance obligations are met at certain points. If such obligations are not met, the transaction is recorded as deferred sales revenue and recognized as sales revenue over a certain period as obligations are met. Milestone payments are recognized only to the extent that significant returns are unlikely after reaching contractual milestones. Running royalties are measured based on contractor sales calculations, etc., and sales revenue is recognized as sales occur. Royalty income is generally received within one year of establishing contractual rights, and does not include significant financing components.

With regard to royalty revenue and other income, Mitsubishi Tanabe Pharma Corporation, a consolidated subsidiary, received a petition for arbitration from Novartis Pharma AG (“Novartis”) of Basel, Switzerland in February 2019. Novartis claimed that some provisions of a license agreement entered into in 1997 (“Agreement”) were invalid and that Novartis had no obligation to pay some royalties. Mitsubishi Tanabe Pharma Corporation claimed the right to receive all royalties payable under the Agreement, and will appropriately pursue this right through arbitration.

Due to arbitration proceedings, the Company decided not to recognize sales revenue in accordance with IFRS 15 for some royalty revenue. Since arbitration proceedings remain ongoing, some sales revenue has not been recognized as revenue for some royalties since the fiscal year ended March 31, 2019.

The portion for which this revenue is not recognized has been posted to other non-current liabilities, and the cumulative amount will be recognized at the end of arbitration.

(2) Contract balance

Receivables from contracts with customers, contract assets, and liabilities are as follows:

	As of April 1, 2020	Fiscal year ended March 31, 2021	Millions of yen Fiscal year ended March 31, 2022
Receivables arising from contracts with customers	¥706,659	¥725,891	¥835,419
Contract assets	11,873	10,243	16,312
Contract liabilities	23,158	38,678	42,266

The Group mainly posts contract assets for compensation from work in progress and posts contract liabilities for advance payments from customers and for deferred sales revenue.

Of sales revenue recognized in the fiscal years ended March 31, 2021 and 2022, ¥10,491 million and ¥12,571 million, respectively, were included in contract liabilities at the start of the terms. Sales revenue recognized from performance obligations satisfied during the two years was ¥15,561 million and ¥12,067 million, respectively. The significant change in contract liabilities in the fiscal year ended March 31, 2021, stemmed from advances received of ¥13,163 million in product supplies in the Health Care segment. There were no significant changes in outstanding contract assets in the fiscal year ended March 31, 2021, or in outstanding contract assets and contract liabilities in the fiscal year ended March 31, 2022.

(3) Transaction price allocated to the remaining performance obligations

Total transaction price allocated to the remaining performance obligations and sales revenue recognition periods were as follows. Transactions with estimated contract terms of less than one year are excluded. There are no material consideration amounts excluded in the transaction arising from customer contracts.

	Millions of yen	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Due within one year	¥21,243	¥43,353
Due after one year	30,590	24,079
Total	¥51,833	¥67,432

(4) Assets recognized from costs to obtain or fulfill contracts with customers

In the fiscal years ended March 31, 2021 and 2022, no assets were recognized from the costs to obtain or fulfill contracts with customers. As a practical expedient, costs are recognized as expenses when incurred if the amortization period of the asset to be recognized is one year or less.

Note 7

Employee Benefit Expenses

Employee benefit expenses included in the Consolidated Statement of Income in the fiscal years ended March 31, 2021 and 2022, were ¥593,945 million and ¥635,577 million, respectively. These costs include salaries, bonuses, legal welfare expenses, and expenses related to retirement benefits, and were presented within Cost of sales, Selling, general and administrative expenses, and Other operating expenses.

Special retirement expenses are as described in Note 9 Other Operating Income and Other Operating Expenses. Retirement benefit expenses are as described in Note 27 Retirement Benefits.

Note 8

Research and Development Expenses

Research and development expenses recognized in the fiscal years ended March 31, 2021 and 2022 were ¥126,073 million and ¥156,584 million, respectively.

In the fiscal years ended March 31, 2021 and 2022, government subsidies for Medicago Inc., a subsidiary of Mitsubishi Tanabe Pharma Corporation, to develop a plant-derived virus-like particle (VLP*) vaccine (development number: MT-2766) to prevent COVID-19, were deducted from research and development expenses.

Note 9

Other Operating Income and Other Operating Expenses

The breakdown of other operating income is as follows:

	Millions of yen	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Gain on transfer of businesses (Note 1)	¥ 1,428	¥60,838
Gain on sales of property, plant and equipment (Note 2)	9,869	9,121
Rent income	2,236	2,284
Gain on sales of shares of subsidiaries and associates	1,168	1,888
Insurance income	1,119	1,019
Gain on arbitration ruling	4,099	—
Gain on step acquisitions	1,295	—
Others	9,499	6,542
Total	¥30,713	¥81,692

Notes:

1. The gain on business transfer was ¥60,838 million in the fiscal year ended March 31, 2022. This related to the transfers of the polycrystalline alumina fiber business of subsidiaries Mitsubishi Chemical Corporation and Mitsubishi Chemical High-Technica Corporation.
2. Gains on sales of fixed assets for the fiscal year ended March 31, 2021, included the gain on the sale of the Toda Office of Mitsubishi Tanabe Pharma Corporation. Gains for the fiscal year ended March 31, 2022, included the gain on the sale of the Kashima Plant of Mitsubishi Tanabe Pharma Corporation.

The breakdown of other operating expenses is as follows:

	Millions of yen	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Impairment loss (Note 1)	¥127,193	¥26,047
Loss on sales and disposal of fixed assets	11,458	14,407
Loss on revision of retirement benefit plan (Note 2)	—	4,027
Special retirement expenses (Note 3)	5,386	2,571
Loss on liquidation of subsidiaries and associates (Note 4)	7,379	270
Provision for loss related to plant closure	3,318	—
Cancellation penalties	1,934	—
Others	15,723	12,639
Total	¥172,391	¥59,961

Notes:

1. Note 15 Impairment Losses details impairment losses.
2. Note 27 Retirement Benefits provides details of loss on revision of retirement benefit plan.
3. Special retirement expenses for the fiscal year ended March 31, 2021, included expenses related to the Career Change Support Program of Mitsubishi Chemical Corporation.
4. The loss on liquidation of subsidiaries and associates for the fiscal year ended March 31, 2021, included a loss on appraisal on an investment in Sinopec Mitsubishi Chemical Polycarbonate (Beijing) Co., Ltd., resulting from a decision to sell that company and reclassify it as an asset held for sale.

In the fiscal year ended March 31, 2021, the Group posted an impairment loss of ¥19,396 million, ¥901 million in special retirement expenses, and a ¥3,318 million provision for loss related to plant closure in connection with a decision to end production and close MMA monomer and MAA plants in Beaumont, Texas.

Together with the ¥60,838 million gain on transfer of businesses relating to polycrystalline alumina fiber business transfers in the fiscal year ended March 31, 2022, the Group posted special retirement expenses of ¥1,330 million, ¥1,121 million loss on disposal of fixed assets, an impairment loss of ¥391 million, and ¥379 million in other related losses.

Note 10

Financial Income and Financial Expenses

The breakdown of financial income is as follows:

	Millions of yen	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Financial income		
Interest income		
Financial assets measured at amortized cost	¥1,295	¥1,101
Dividend income		
Financial assets measured at fair value through other comprehensive income	4,252	4,774
Foreign exchange gains	2,399	2,904
Others	306	589
Total	¥8,252	¥9,368

The breakdown of financial expenses is as follows:

	Millions of yen	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Financial expenses		
Interest expenses		
Financial liabilities measured at amortized cost	¥21,404	¥20,985
Others	1,458	1,207
Total	¥22,862	¥22,192

Income Taxes

1. Deferred Tax Assets and Liabilities

As of March 31, 2021 and 2022, significant components of deferred tax assets and liabilities are as follows:

Fiscal year ended March 31, 2021

	Millions of yen				
	April 1, 2020	Amounts recognized in profit or loss	Amounts recognized in other comprehensive income	Others (Note)	March 31, 2021
Deferred tax assets:					
Tax loss carryforwards	¥ 52,950	¥ (6,068)	¥ —	¥ 511	¥ 47,393
Net defined benefit liabilities	30,719	241	(11,346)	370	19,984
Property, plant and equipment	18,738	277	—	79	19,094
Employees' bonuses	12,459	(395)	—	(24)	12,040
Inventories	10,068	(2,044)	—	44	8,068
Employees' paid leave	7,954	(248)	—	121	7,827
Others	64,334	16,159	(786)	1,328	81,035
Total	¥ 197,222	¥ 7,922	¥(12,132)	¥ 2,429	¥ 195,441
Deferred tax liabilities:					
Valuation of assets	¥(126,559)	¥27,533	¥ —	¥(11,666)	¥(110,692)
Property, plant and equipment	(76,548)	2,349	—	(2,939)	(77,138)
Securities and other investments	(34,571)	(211)	(11,398)	2,199	(43,981)
Retained earnings of foreign subsidiaries	(14,848)	1,446	—	13	(13,389)
Others	(32,644)	(4,787)	(25)	(1,284)	(38,740)
Total	¥(285,170)	¥26,330	¥(11,423)	¥(13,677)	¥(283,940)
Net deferred tax assets	¥ (87,948)	¥34,252	¥(23,555)	¥(11,248)	¥ (88,499)

Note:

Others include exchange differences on translation of foreign operations and changes owing to business combinations, etc.

Fiscal year ended March 31, 2022

	Millions of yen				
	April 1, 2021	Amounts recognized in profit or loss	Amounts recognized in other comprehensive income	Others (Note)	March 31, 2022
Deferred tax assets:					
Net defined benefit liabilities	¥ 19,984	¥ 6,618	¥(2,661)	¥ 7,371	¥ 31,312
Employees' bonuses	12,040	8,382	—	37	20,459
Tax loss carryforwards	47,393	(29,643)	—	2,060	19,810
Property, plant and equipment	19,094	(1,466)	—	(61)	17,567
Employees' paid leave	7,827	1,217	—	61	9,105
Inventories	8,068	(169)	—	2	7,901
Others	81,035	4,740	(702)	1,848	86,921
Total	¥ 195,441	¥(10,321)	¥(3,363)	¥ 11,318	¥ 193,075
Deferred tax liabilities:					
Valuation of assets	¥(110,692)	¥ 8,363	¥ —	¥ (7,961)	¥(110,290)
Property, plant and equipment	(77,138)	(3,208)	—	(8,398)	(88,744)
Securities and other investments	(43,981)	1,635	(993)	4,353	(38,986)
Retained earnings of foreign subsidiaries	(13,389)	(3,734)	—	(18)	(17,141)
Others	(38,740)	(769)	(760)	(8,172)	(48,441)
Total	¥(283,940)	¥ 2,287	¥(1,753)	¥(20,196)	¥(303,602)
Net deferred tax assets	¥ (88,499)	¥ (8,034)	¥(5,116)	¥ (8,878)	¥(110,527)

Note:

Others include exchange differences on translation of foreign operations and changes owing to business combinations, etc.

In recognizing deferred tax assets, the Group considers whether it can use all or part of future deductible temporary differences or unused tax loss carryforwards with respect to expected future taxable income. In evaluating the recoverability of deferred tax assets, the Group considers the planned reversal of deferred tax liabilities, expected future taxable income, and tax planning. In addition, future taxable income estimates are based on future business plans. The primary assumptions are sales revenue forecasts and market trends for raw material prices. Management expects to recover recognized deferred tax assets in keeping with past taxable income levels and the forecasts for future taxable income when future deductible temporary differences and unused tax loss carryforwards are expected to reverse. Although management deems its assumptions reasonable, they could be affected by future uncertain fluctuations in economic conditions. If future taxable income differs from forecasts and assumptions, the recoverability of deferred tax assets could differ.

Future deductible temporary differences and unused tax loss carryforwards (on an income basis), not recognized as deferred tax assets are as follows:

	Millions of yen	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Future deductible temporary differences	¥116,660	¥109,433
Unused tax loss carryforwards	331,749	370,237
Unused tax credit carryforwards	42,298	52,446

Unrecognized deferred tax assets corresponding to the above are as follows.

	Millions of yen	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Future deductible temporary differences	¥33,678	¥30,338
Unused tax loss carryforwards	53,753	72,178
Unused tax credit carryforwards	9,928	12,466

The breakdowns of tax loss carryforwards not recognized as deferred tax assets (on an income basis) by expiration date are as follows:

	Millions of yen	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Tax loss carry forwards:		
Due within one year	¥ 10,923	¥ 1,162
Due after one year and not later than five years	138,213	96,603
Due after five years and not later than 10 years	25,731	40,253
Due after 10 years and not later than 20 years	64,510	111,600
Indefinite	92,372	120,619
Total	¥331,749	¥370,237

	Millions of yen	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Unused tax credit carryforwards		
Due within one year	¥ 757	¥ —
Due after one year and not later than five years	11,085	14,678
Due after five years and not later than 10 years	—	—
Due after 10 years and not later than 20 years	1,752	1,770
Indefinite	28,704	35,998
Total	¥42,298	¥52,446

As of March 31, 2021 and 2022, total temporary differences related to undistributed earnings of subsidiaries for which deferred tax liabilities were not recognized were ¥1,307,764 million and ¥1,354,648 million, respectively.

The Group does not recognize deferred tax liabilities related to temporary differences when it can control the timing of the reversal of the temporary differences and it is highly probable that temporary differences will not be reversed in the foreseeable future.

2. Income Taxes

The breakdown of income taxes is as follows:

	Millions of yen	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Income taxes	¥44,438	¥72,931
Deferred income taxes	(34,252)	8,034
Total	¥10,186	¥80,965

3. Effective Tax Rate Reconciliation Schedule

The Company is principally subject to corporate taxes, resident taxes and business taxes. The statutory effective tax rate that is the base for these taxes was 30.6% in the fiscal years ended March 31, 2021 and 2022. For overseas subsidiaries, local corporate income taxes are imposed.

A reconciliation of the statutory tax rates to the effective tax rates for the fiscal years ended March 31, 2021 and 2022, was as follows:

	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Statutory tax rate	30.6%	30.6%
Difference of statutory tax rate in overseas subsidiaries	(1.5)	(3.5)
Tax credits for research and development costs	(11.4)	(3.3)
Share of profit of investments accounted for using the equity method	(14.4)	(2.2)
Permanent differences	15.4	1.9
Tax effect on undistributed earnings	(4.5)	1.3
Unrecognized deferred tax assets	5.1	1.0
Foreign taxes	7.7	0.4
Others	4.0	1.7
Effective tax rate	31.0%	27.9%

Note 12

Per Share Information

The bases for calculating basic and diluted earnings per share attributable to owners of the parent were as follows:

	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
	(Millions of yen)	
Net income (loss) attributable to owners of the parent	¥ (7,557)	¥177,162
Adjustment	—	281
Net income (loss) used to calculate diluted earnings per share	¥ (7,557)	¥177,443
	(Thousands of shares)	
Average number of ordinary shares during period	1,420,256	1,420,945
Impact of potentially dilutive ordinary shares		
Convertible bond-type bonds with subscription rights to shares	—	120,256
Subscription rights to shares	—	1,442
Average number of diluted ordinary shares during period	1,420,256	1,542,643
	(Yen)	
Basic earnings (loss) per share attributable to owners of the parent	¥ (5.32)	¥ 124.68
Diluted earnings (loss) per share attributable to owners of the parent	¥ (5.32)	¥ 115.03

Notes:

1. In the calculation of basic and diluted net income per share attributable to owners of the parent, the Company stocks held by Board Incentive Plan trust are included in shares of treasury stock deducted in calculating the average number of shares during the period.
2. Diluted earnings per share for the fiscal year ended March 31, 2021 does not include dilutive potential ordinary shares; convertible bond-type bonds with subscription rights to shares and Subscription rights to shares due to the anti-dilutive effect caused by the loss during the period.

Note 13

Goodwill and Intangible Assets

1. Schedule of Goodwill and Intangible Assets

The acquisition cost, accumulated amortization, accumulated impairment losses and carrying amount of goodwill and intangible assets were as follows:

Fiscal year ended March 31, 2021

Acquisition cost

	Millions of yen					
	Goodwill	Intangible assets			Total	
		Technology-related intangible assets	Customer-related intangible assets	Software	Other	Total
Balance as of April 1, 2020	¥633,043	¥244,919	¥326,048	¥73,017	¥59,723	¥703,707
Acquisitions	—	2,702	—	5,661	4,181	12,544
Acquisitions through business combinations	17,202	27,801	5,658	130	194	33,783
Sale or disposal	—	(6,446)	—	(1,938)	(320)	(8,704)
Transfers	(386)	—	—	182	(382)	(200)
Exchange differences on translation of foreign operations	38,304	26,320	21,884	(4,333)	1,504	45,375
Balance as of March 31, 2021	¥688,163	¥295,296	¥353,590	¥72,719	¥64,900	¥786,505

Accumulated amortization, accumulated impairment losses

Millions of yen

	Intangible assets					Total
	Goodwill	Technology-related intangible assets	Customer-related intangible assets	Software	Other	
Balance as of April 1, 2020	¥16,274	¥44,703	¥59,643	¥56,748	¥32,038	¥193,132
Amortization	—	7,613	16,371	6,180	2,973	33,137
Impairment losses	—	88,408	—	55	268	88,731
Sale or disposal	—	(6,435)	—	(1,871)	(62)	(8,368)
Exchange differences on translation of foreign operations	—	26,928	2,491	(5,018)	155	24,556
Balance as of March 31, 2021	¥16,274	¥161,217	¥78,505	¥56,094	¥35,372	¥331,188

Carrying amount

Millions of yen

	Intangible assets					Total
	Goodwill	Technology-related intangible assets	Customer-related intangible assets	Software	Other	
Balance as of April 1, 2020	¥616,769	¥200,216	¥266,405	¥16,269	¥27,685	¥510,575
Balance as of March 31, 2021	¥671,889	¥134,079	¥275,085	¥16,625	¥29,528	¥455,317

Fiscal year ended March 31, 2022

Acquisition cost

Millions of yen

	Intangible assets					Total
	Goodwill	Technology-related intangible assets	Customer-related intangible assets	Software	Other	
Balance as of April 1, 2021	¥688,163	¥295,296	¥353,590	¥72,719	¥64,900	¥786,505
Acquisitions	—	5,759	—	7,697	850	14,306
Acquisitions through business combinations	3,954	—	1,839	146	1,014	2,999
Sale or disposal	—	(13,374)	(24)	(3,590)	(1,072)	(18,060)
Transfers	—	—	—	(4)	(7)	(11)
Exchange differences on translation of foreign operations	29,569	20,642	21,610	3,737	3,590	49,579
Balance as of March 31, 2022	¥721,686	¥308,323	¥377,015	¥80,705	¥69,275	¥835,318

Accumulated amortization, accumulated impairment losses

Millions of yen

	Intangible assets					Total
	Goodwill	Technology-related intangible assets	Customer-related intangible assets	Software	Other	
Balance as of April 1, 2021	¥16,274	¥161,217	¥78,505	¥56,094	¥35,372	¥331,188
Amortization	—	8,067	16,910	6,402	2,786	34,165
Impairment losses	—	16,166	—	22	1	16,189
Sale or disposal	—	(13,337)	(23)	(3,228)	(1,003)	(17,591)
Exchange differences on translation of foreign operations	—	11,350	5,812	3,355	2,045	22,562
Balance as of March 31, 2022	¥16,274	¥183,463	¥101,204	¥62,645	¥39,201	¥386,513

Carrying amount

	Millions of yen					
	Goodwill	Intangible assets				Total
		Technology-related intangible assets	Customer-related intangible assets	Software	Other	
Balance as of April 1, 2021	¥671,889	¥134,079	¥275,085	¥16,625	¥29,528	¥455,317
Balance as of March 31, 2022	¥705,412	¥124,860	¥275,811	¥18,060	¥30,074	¥448,805

There were no material internally generated assets in the fiscal years ended March 31, 2021 and 2022.

The amortization of intangible assets is included in Cost of sales and Selling, general and administrative expenses in the Consolidated Statement of Income.

2. Significant Intangible Assets

Significant intangible assets in the Consolidated Statement of Financial Position include technology-related intangible assets that the Company obtained in acquiring Mitsubishi Rayon Co., Ltd. (now Mitsubishi Chemical Corporation), in March 2010. The carrying amounts of these intangible assets were ¥13,239 million as of March 31, 2021 and ¥10,926 million as of March 31, 2022. The remaining amortization periods were 3 to 7 years.

The carrying amounts of customer-related intangible assets of Taiyo Nippon Sanso Corporation (now Nippon Sanso Holdings Corporation), which the Company acquired in November 2014, were ¥23,979 million as of March 31, 2021, and ¥21,450 million as of March 31, 2022. The remaining amortization periods were 6 to 11 years.

The carrying amounts of technology-related intangible assets of NeuroDerm Ltd. which Mitsubishi Tanabe Pharma Corporation acquired in October 2017, were ¥45,280 million as of March 31, 2021 and ¥50,058 million as of March 31, 2022. This item is classified as intangible assets with indefinite useful lives. In the fiscal year ended March 31, 2021, the carrying amount of such intangible assets was partially impaired, and stated in Note 15 Impairment Losses.

The carrying amount of customer-related intangible assets of European businesses which Taiyo Nippon Sanso Corporation (now Nippon Sanso Holdings Corporation) acquired in December 2018, were ¥187,385 million as of March 31, 2021 and ¥188,326 million as of March 31, 2022. The remaining amortization period was mainly 26 years.

The carrying amount of intangible assets related to technology obtained through the Mitsubishi Chemical America Inc. acquisition of Gelest in October 2020, were ¥28,111 million as of March 31, 2021 and ¥29,146 million as of March 31, 2022. The remaining amortization period was mainly 13 years.

3. Intangible Assets with Indefinite Useful Lives

The carrying amounts of intangible assets with indefinite useful lives were ¥79,474 million and ¥66,695 million, as of March 31, 2021 and 2022, respectively, mainly comprising in-process research and development costs recognized by Mitsubishi Tanabe Pharma Corporation in the Health Care segment in connection with its acquisition of NeuroDerm Ltd. in 2017. These amounts are included in technology-related intangible assets. Given that the assets are at the research and development stage, have yet to obtain marketing approval from regulatory authorities, and cannot be in use, the Company classifies them as intangible assets with indefinite useful lives and as intangible assets that are not yet available for use.

The relevant assets are subject to impairment testing at certain times every year, regardless of whether there are indications of impairment.

In impairment tests, recoverable amounts of intangible assets are measured by their value in use.

In calculating value in use, the Company uses estimates of future cash flows based on management-approved business plans. The business plans are based on experience and external information. Except on justifiable grounds, the plans are, in principle, for up to five years, the prime assumptions being the prospects for obtaining regulatory approval for sales, post launch sales revenue forecasts, and discount rates.

The discount rate used is the pre-tax weighted average cost of capital. The rates were 8.1%-10.4% and 6.5%-10.9% for the fiscal years ended March 31, 2021 and 2022, respectively. The discount rates used in the annual impairment test for in-process R&D expenses related to NeuroDerm were 10.4% and 10.9% for the fiscal years ended March 31,

2021 and 2022, respectively. If the discount rate were to increase by 1.8% in the fiscal year ended March 31, 2022, the recoverable amount could equal the carrying amount.

Although management deems these assumptions reasonable, they are subject to uncertain fluctuations in future economic conditions. If assumptions change, calculations of recoverable amount may differ.

Impairment losses recognized for intangible assets with indefinite useful lives are as described in Note 15 Impairment Losses.

4. Goodwill

The carrying amounts of goodwill allocated to cash-generating units (groups of cash-generating units) are as follows:

Millions of yen

Reporting segment	Cash-Generating Unit (Groups of Cash-Generating Units)	March 31, 2021	March 31, 2022
Performance Products	High performance engineering plastics	¥ 26,500	¥ 28,702
	Pharmaceutical formulation materials	16,288	16,288
	Others	53,148	57,749
	Total	¥ 95,936	¥102,739
Chemicals	MMA	¥ 38,190	¥ 38,336
	Others	2,913	3,026
	Total	¥ 41,103	¥ 41,362
Industrial Gases	Industrial gases	¥476,639	¥501,170
Health Care	Ethical pharmaceuticals	¥ 58,211	¥ 59,939
Others	Others	—	¥ 202
Total		¥671,889	¥705,412

The recoverable amounts of goodwill of cash-generating unit groups are measured by their value in use.

The value in use is based on a management-approved five-year plan reflecting experience and external information sources. After considering future uncertainties after the five-year period, the Company assumes a zero-growth rate, with value equaling cash flows in the fifth year. Estimated future cash flows are shaped largely by sales revenue forecasts and market growth rates. While management has determined that its main assumptions are reasonable, they are subject to uncertain changes in economic conditions, and calculations of recoverable amounts could differ if assumptions change.

The discount rates used for measuring recoverable amounts are as follows:

Reporting segment	Cash-Generating Unit (Groups of Cash-Generating Units)	March 31, 2021	March 31, 2022
Performance Products	High performance engineering plastics	7.1%	6.6%
	Pharmaceutical formulation materials	6.2%	6.7%
Chemicals	MMA	5.8%	5.8%
Industrial Gases	Industrial gases	5.8%	5.8%
Health Care	Ethical pharmaceuticals	8.1%	8.1%

For goodwill allocated to pharmaceutical formulation materials, it was possible that the recoverable amount would equal the carrying amount if the discount rate rose 1.3% in the previous fiscal year. If the discount rate were to increase 0.4% in the fiscal year ended March 31, 2022, the recoverable amount could equal the carrying amount.

Note 14

Property, Plant and Equipment

The acquisition cost, accumulated depreciation, accumulated impairment losses and carrying amount of property, plant and equipment were as follows:

1. Schedule of property, plant and equipment

Fiscal year ended March 31, 2021

Acquisition cost

	Millions of yen					
	Buildings and structures	Machinery and vehicles	Tools, furniture and fixtures	Land	Construction in progress	Total
Balance as of April 1, 2020	¥1,154,049	¥3,314,776	¥340,704	¥288,501	¥132,905	¥5,230,935
Acquisitions (Note 1)	81,444	147,002	24,811	5,385	43,570	302,212
Acquisitions through business combinations	6,270	7,040	468	671	557	15,006
Transfer of businesses	(408)	(1,758)	(110)	—	(1)	(2,277)
Sale or disposal	(27,500)	(100,455)	(14,059)	(714)	(197)	(142,925)
Transfers (Note 2)	(21,274)	(8,839)	(38)	(8,991)	(15,232)	(54,374)
Exchange differences on translation of foreign operations	16,531	25,482	9,563	5,327	4,754	61,657
Balance as of March 31, 2021	¥1,209,112	¥3,383,248	¥361,339	¥290,179	¥166,356	¥5,410,234

Accumulated depreciation, accumulated impairment losses

	Millions of yen					
	Buildings and structures	Machinery and vehicles	Tools, furniture and fixtures	Land	Construction in progress	Total
Balance as of April 1, 2020	¥756,974	¥2,485,011	¥235,150	¥8,005	¥3,579	¥3,488,719
Transfer of businesses	(311)	(1,571)	(93)	—	—	(1,975)
Depreciation	42,607	145,829	20,766	1,454	—	210,656
Impairment losses	6,522	28,153	188	745	2,854	38,462
Sale or disposal	(25,515)	(97,512)	(13,214)	—	(114)	(136,355)
Transfers (Note 2)	(13,668)	(9,081)	84	(88)	—	(22,753)
Exchange differences on translation of foreign operations	7,734	6,155	4,088	1,927	(262)	19,642
Balance as of March 31, 2021	¥774,343	¥2,556,984	¥246,969	¥12,043	¥6,057	¥3,596,396

Notes:

- "Acquisitions" of construction in progress is presented as a net amount, including the amount of increase due to new acquisitions as well as the amount in parentheses transferred to each property, plant and equipment account.
- Transfers include a transfer to assets held for sale.

Carrying amount

	Millions of yen					
	Buildings and structures	Machinery and vehicles	Tools, furniture and fixtures	Land	Construction in progress	Total
Balance as of April 1, 2020	¥397,075	¥829,765	¥105,554	¥280,496	¥129,326	¥1,742,216
Balance as of March 31, 2021	¥434,769	¥826,264	¥114,370	¥278,136	¥160,299	¥1,813,838

Fiscal year ended March 31, 2022

Acquisition cost

Millions of yen

	Buildings and structures	Machinery and vehicles	Tools, furniture and fixtures	Land	Construction in progress	Total
Balance as of April 1, 2021	¥1,209,112	¥3,383,248	¥361,339	¥290,179	¥166,356	¥5,410,234
Acquisitions (Note 1)	45,446	142,904	27,433	7,116	39,870	262,769
Acquisitions through business combinations	1,290	199	323	384	223	2,419
Transfer of businesses	(5,609)	(35,599)	(604)	—	(372)	(42,184)
Sale or disposal	(24,591)	(72,449)	(16,748)	(3,062)	(3,464)	(120,314)
Transfers (Note 2)	(4,423)	(8,222)	(720)	(1,382)	(7,273)	(22,020)
Exchange differences on translation of foreign operations	25,974	120,540	16,426	918	9,368	173,226
Balance as of March 31, 2022	¥1,247,199	¥3,530,621	¥387,449	¥294,153	¥204,708	¥5,664,130

Accumulated depreciation, accumulated impairment losses

Millions of yen

	Buildings and structures	Machinery and vehicles	Tools, furniture and fixtures	Land	Construction in progress	Total
Balance as of April 1, 2021	¥774,343	¥2,556,984	¥246,969	¥12,043	¥6,057	¥3,596,396
Transfer of businesses	(1,941)	(23,440)	(422)	—	—	(25,803)
Depreciation	43,637	149,463	22,561	1,643	—	217,304
Impairment losses	1,702	3,571	80	1,134	3,371	9,858
Sale or disposal	(21,413)	(69,812)	(15,808)	(1,805)	(3,375)	(112,213)
Transfers (Note 2)	(2,053)	(4,554)	(376)	(430)	—	(7,413)
Exchange differences on translation of foreign operations	10,685	69,736	9,304	(2,876)	(543)	86,306
Balance as of March 31, 2022	¥804,960	¥2,681,948	¥262,308	¥ 9,709	¥5,510	¥3,764,435

Notes:

1. "Acquisitions" of construction in progress is presented as a net amount, including the amount of increase due to new acquisitions as well as the amount in parentheses transferred to each property, plant and equipment account.
2. Transfers include a transfer to assets held for sale.

Carrying amount

Millions of yen

	Buildings and structures	Machinery and vehicles	Tools, furniture and fixtures	Land	Construction in progress	Total
Balance as of April 1, 2021	¥434,769	¥826,264	¥114,370	¥278,136	¥160,299	¥1,813,838
Balance as of March 31, 2022	¥442,239	¥848,673	¥125,141	¥284,444	¥199,198	¥1,899,695

Right-of-use assets increased ¥51,634 million and ¥20,831 million in the fiscal years ended March 31, 2021 and 2022 respectively.

Depreciation of property, plant and equipment is included in Cost of sales and Selling, general and administrative expenses in the Consolidated Statement of Income.

Expenditure on construction work in progress for property, plant and equipment is included in construction in progress.

2. Right-of-use assets (lease assets)

The carrying amounts of right-of-use assets included in property, plant and equipment are as follows:

	Millions of yen	
	As of March 31, 2021	As of March 31, 2022
Buildings and structures	¥ 85,642	¥ 80,394
Machinery and vehicles	16,353	18,097
Tools, furniture and fixtures	11,992	12,152
Land	6,710	9,094
Total	¥120,697	¥119,737

Note 15

Impairment Losses In principle, the Group determines its cash-generating units considering operational, production processes, regions, and other factors based on business units. The Group tests idle assets individually to recognize impairment losses.

Impairment losses in the fiscal years ended March 31, 2021, and 2022, are as follows. Impairment losses are included in other operating expenses in the Consolidated Statement of Income.

Impairment losses

	Millions of yen	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Property, plant and equipment		
Buildings and structures	¥ 6,522	¥ 1,702
Machinery and vehicles	28,153	3,571
Tools, furniture and fixtures	188	80
Land	745	1,134
Construction in progress	2,854	3,371
Total of property, plant and equipment	¥ 38,462	¥ 9,858
Intangible assets (Note)	88,731	16,189
Total impairment losses	¥127,193	¥26,047

Note:

The impairment losses on intangible assets with indefinite useful lives were ¥88,393 million and ¥16,166 million in the fiscal years ended March 31, 2021 and 2022, respectively.

The main assets for which impairment losses were recognized are as follows:

Fiscal year ended March 31, 2021

Property, plant and equipment and intangible assets

Use	Location	Category	Reporting segment	Impairment loss
Development of therapeutic drug for Parkinson's disease	NeuroDerm Ltd. (Rehovot, Israel)	Intangible assets related to technology (in-process R&D expenses)	Health Care	¥84,534 million
MMA monomer and MAA production facilities	Lucite International (now Mitsubishi Chemical America, Inc) (Texas, USA)	Machinery and equipment, etc.	Chemicals	¥19,396 million
Polyvinyl alcohol manufacturing facilities	Kumamoto Plant of Mitsubishi Chemical Corporation (Uto, Kumamoto Prefecture)	Machinery and equipment, etc.	Primarily Performance Products	¥4,432 million
Development of nucleic acid pharmaceuticals for inflammatory bowel disease	Stelic Institute & Co., Inc. (Chuo-ku, Osaka)	Intangible assets related to technology (in-process R&D expenses)	Health Care	¥3,859 million

1. Development of therapeutic drug for Parkinson's disease

Management expects the profitability of the Parkinson's disease drug that NeuroDerm is developing to decline owing to changes in the business climate. Reviewing plans based on market research showed that the recoverable amount was less than the carrying amount. The Company accordingly reduced the carrying amount of intangible assets (in-process R&D expenses) related to this technology to the recoverable amount of ¥43,272 million and recorded an impairment loss of ¥84,534 million in the second quarter of the fiscal year ended March 31, 2021.

The recoverable amount is based on value in use. The significant assumptions used to calculate the value in use are prospects for obtaining regulatory marketing approval, sales revenue forecasts after a product launch, and the discount rate. The value in use is based on a planning period exceeding five years, factoring in account the patent period and product lifecycle based on experience and external information sources, with estimated future cash flows discounted to the present value.

The discount rate is the pre-tax weighted average cost of capital of 10.2% for the relevant cash-generating unit.

2. Facilities for MMA monomer and MAA production

The Company decided to strengthen the competitiveness of its MMA business and optimize its supply system by terminating MMA monomer and MAA production at Lucite International's plant in Beaumont, Texas., and by closing that facility. Lucite International is a subsidiary of Mitsubishi Chemical Corporation, a consolidated subsidiary of the Company. In the absence of prospects for recovering the investment, the Company lowered the relevant plant and equipment carrying amount to the recoverable amount and posted an impairment loss of ¥19,396 million (¥18,547 million for machinery and equipment and ¥849 million for other).

The relevant recoverable amount is based on value in use. Future cash flows used to measure value in use were not discounted owing to a short remaining usage period that was immaterial in calculating the recoverable amount.

3. Polyvinyl alcohol manufacturing facilities

The Company decided to undertake structural reforms at some polyvinyl alcohol manufacturing facilities at the Kumamoto Plant of Mitsubishi Chemical Corporation. This is because the facilities are aging and require extensive renovations to continue operating as cost competition with foreign offerings intensifies. The Company accordingly posted an impairment loss of ¥4,432 million (including ¥3,145 million for machinery and equipment, ¥774 million for buildings and structures and ¥513 million for others).

The recoverable amount is based on value in use. The discount rate is not presented because the undiscounted future cash flow is negative.

4. Development of nucleic acid pharmaceutical for inflammatory bowel diseases

Mitsubishi Tanabe Pharma Corporation decided to stop developing a nucleic acid pharmaceutical (MT-5745) for inflammatory bowel diseases. That drug was obtained from Stelic Institute & Co., Inc. The Company thus fully reduced the carrying amount of intangible assets (in-process R&D expenses) related to this technology and posted an impairment loss of ¥3,859 million.

The recoverable amount is based on the value in use, set at zero.

Fiscal year ended March 31, 2022

Property, plant and equipment and intangible assets

Use	Location	Category	Reporting segment	Impairment loss
Steam turbine facilities	Mitsubishi Chemical UK Limited (Stockton-on-Tees, United Kingdom)	Construction in progress	Chemicals	¥3,349 million
Development of treatment of Osteoarthritis pain	Mitsubishi Tanabe Pharma Corporation (Osaka Prefecture)	Intangible assets related to technology (rights secured from a development stage in-licensing agreement)	Health Care	¥15,797 million

1. Steam turbine facilities

In line with a decision to cancel the construction plan for some of the steam turbine facilities which are under construction at the Cassel site of Mitsubishi Chemical UK Limited, the Company fully reduced the carrying amount of this facilities (construction in progress) and posted an impairment loss of ¥3,349 million. The recoverable amount is based on the value in use, set at zero.

2. Development of treatment of Osteoarthritis pain

The results of a revision to the business plan of treatment of Osteoarthritis pain (MT-5547) to factor in changes in the business environment triggered a drop in the recoverable amount to below carrying amount. The Company accordingly reduced the carrying amount of intangible assets related to technology (rights acquired through a licensing-in contract) to the recoverable amount of ¥923 million and posted an impairment loss of ¥15,797 million. The Company classifies intangible assets related to this technology as intangible assets with indefinite useful lives.

The recoverable amount is based on value in use. The significant assumptions used to calculate the value in use are prospects for obtaining regulatory marketing approval, sales revenue forecasts after a product launch, and the discount rate. The value in use is based on a planning period exceeding five years, factoring in account the patent period and product lifecycle based on experience and external information sources, with estimated future cash flows discounted to the present value.

The discount rate is the pre-tax weighted average cost of capital of 6.5% (8.1% in the fiscal year ended March 31, 2021) for the relevant cash-generating unit.

Note 16

Individually Insignificant Investments Accounted for Using Equity Method

1. Carrying Amounts of Investments and Share of Total Shareholders' Equity in Total Comprehensive Income

The carrying amounts of individually insignificant investments in joint ventures accounted for using the equity method are as follows:

	Millions of yen	
	As of March 31, 2021	As of March 31, 2022
Carrying amounts of investments in joint ventures	¥81,651	¥89,100

Equity in earnings of joint ventures accounted for using the equity method for total comprehensive income is as follows:

	Millions of yen	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Share of profit using equity method	¥6,243	¥11,154
Share of other comprehensive income using equity method	2,770	1,359
Share of total shareholders' equity in total comprehensive income	¥9,013	¥12,513

Carrying amounts of individually insignificant investments in associates accounted for using the equity method are as follows:

	Millions of yen	
	As of March 31, 2021	As of March 31, 2022
Carrying amounts of investments in associates	¥80,391	¥85,691

Equity in earnings of associates accounted for using the equity method for total comprehensive income is as follows:

	Millions of yen	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Share of profit using equity method	¥9,397	¥10,040
Share of other comprehensive income using equity method	368	3,291
Share of total shareholders' equity in total comprehensive income	¥9,765	¥13,331

2. Loss on Liquidation of Subsidiaries and Associates.

For investments in affiliates and joint ventures, the Group looks for indications of asset impairment, estimating recoverable amounts for assets with such indications. For the fiscal years ended March 31, 2021, and 2022, the Company recorded losses on liquidation of subsidiaries and associates of ¥7,379 million and ¥270 million, respectively, under other operating expenses in the Consolidated Statement of Income.

Note 17

Other Financial Assets

The breakdown of other financial assets is as follows:

	Millions of yen	
	As of March 31, 2021	As of March 31, 2022
Stocks and investments	¥219,371	¥193,888
Accounts receivable	34,067	35,900
Other	47,646	56,532
Allowance for doubtful accounts	(2,055)	(1,702)
Total	¥299,029	¥284,618
Current assets	¥ 47,818	¥ 51,085
Non-current assets	251,211	233,533
Total	¥299,029	¥284,618

Stocks and investments are classified mainly as equity financial assets measured at fair value through other comprehensive income. Accounts receivable is classified as financial assets measured mainly at amortized cost.

Other includes financial assets related to contingent consideration agreements, are classified as financial assets measured at fair value through profit or loss.

The major issues and fair values of equity financial assets measured at fair value through other comprehensive income are as follows:

As of March 31, 2021

Company name	Millions of yen
TOHO HOLDINGS CO., LTD.	¥7,254
IBIDEN CO., LTD.	6,741
Alfresa Holdings Corporation	4,748
Tosoh Corporation	4,725
MEDIPAL HOLDINGS CORPORATION	4,515
SUZUKEN CO., LTD.	4,149
Shin-Etsu Chemical Co., Ltd.	3,759
JFE Holdings, Inc.	3,507
Mitsubishi Research Institute, Inc.	3,436
Mitsubishi UFJ Financial Group, Inc.	3,242

As of March 31, 2022

Company name	Millions of yen
PHC Holdings Corporation	¥22,234
IBIDEN CO., LTD.	8,012
TOHO HOLDINGS CO., LTD.	6,611
MEDIPAL HOLDINGS CORPORATION	4,283
Tosoh Corporation	4,049
Shin-Etsu Chemical Co., Ltd.	3,796
Velo3D, Inc.	3,741
JiLin OLED Material Tech Co., Ltd.	3,567
Mitsubishi Research Institute, Inc.	2,496
KOATSU GAS KOGYO CO., LTD.	2,237

As well as the assets above, the Group holds financial assets measured at fair value through other comprehensive income for which quoted prices in active markets are unavailable, mainly comprising stocks related to the Chemicals, Health Care and Industrial

Gases product segments.

Investments in Chemicals -related stocks were ¥65,532 million as of March 31, 2021, and ¥83,422 million as of March 31, 2022. Investments in Health Care-related stocks were ¥54,534 million as of March 31, 2021, and ¥8,602 million as of March 31, 2022. Investments in Industrial Gases-related stocks amounted to ¥8,679 million as of March 31, 2021, and ¥8,810 million as of March 31, 2022.

As stocks are held mainly to maintain and strengthen business and collaborative ties and financial transactions, they are designated as equity financial assets measured at fair value through other comprehensive income.

The Company endeavors to enhance the efficiency and effective use of its assets by selling (derecognizing) equity financial assets measured at fair value through other comprehensive income. Fair values upon sales and cumulative gains or losses (before tax) on sales are as follows. Cumulative gains or losses (after tax) recognized in other components of equity are transferred to retained earnings at the time of sale.

	Millions of yen	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Fair value	¥9,927	¥33,242
Cumulative gains or losses	6,000	10,326

Dividend income from equity financial assets measured at fair value through other comprehensive income is as follows:

	Millions of yen	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Derecognized financial assets	¥ 18	¥ 565
Financial assets held at year-end	4,234	4,209

Note 18

Other Assets

The breakdown of other assets is as follows:

	Millions of yen	
	As of March 31, 2021	As of March 31, 2022
Net defined benefit assets	¥ 59,626	¥ 52,162
Prepaid expenses	36,195	39,318
Advance payment	9,772	17,456
Contract asset (Note)	10,243	16,312
Consumption taxes receivable	4,109	12,956
Accrued income tax	16,403	7,022
Other	15,165	22,253
Total	¥151,513	¥167,479
Current assets	83,462	106,556
Non-current assets	68,051	60,923
Total	¥151,513	¥167,479

Note: See Note 6 Sales Revenue for details.

Note 19

Inventory

The breakdown of inventory is as follows:

	Millions of yen	
	As of March 31, 2021	As of March 31, 2022
Finished goods	¥327,499	¥419,729
Raw materials and supplies	175,948	238,903
Work in process	73,026	86,616
Total	¥576,473	¥745,248

Inventories measured at net realizable value as of March 31, 2021 and 2022 were ¥78,933 million and ¥86,174 million, respectively.

In the fiscal years ended March 31, 2021 and 2022, write-downs of inventories recognized as expenses were ¥5,758 million and ¥5,783 million, respectively.

Note 20

Trade Receivables The breakdown of trade receivables is as follows:

	Millions of yen	
	As of March 31, 2021	As of March 31, 2022
Accounts receivable	¥725,891	¥835,419
Allowance for doubtful accounts	(9,499)	(9,423)
Total	¥716,392	¥825,996

Trade receivables are classified as financial assets measured at amortized cost.

Note 21

Cash and Cash Equivalents The breakdown of cash and cash equivalents is as follows:

	Millions of yen	
	As of March 31, 2021	As of March 31, 2022
Cash and deposits	¥355,511	¥217,635
Short-term investments	14,066	28,154
Total	¥349,577	¥245,789

Note 22

Assets Held for Sale The breakdowns of assets held for sale and directly related liabilities are as follows:

	Millions of yen	
	As of March 31, 2021	As of March 31, 2022
Assets held for sale:		
Inventories	¥ 855	¥ 2,746
Property, plant and equipment	14,007	1,268
Other financial assets	8,947	6,807
Others	3	621
Total	¥23,812	¥11,442
Liabilities related directly to assets held for sale:		
Deferred tax liabilities	¥ 2,534	¥ 15
Others	—	865
Total	¥ 2,534	¥ 880

Fiscal year ended March 31, 2021

Assets held for sale and directly related liabilities as of March 31, 2021, primarily comprised the following.

(1) Those related to the Kashima Office of Mitsubishi Tanabe Pharma Corporation, a consolidated subsidiary of the Company in the Health Care segment

The Company entered into a real estate sale agreement with the buyer in March 2019.

Those have been classified as held for sale as it is expected to be sold within one year since the end of the third quarter of the fiscal year ended March 31, 2021.

Assets held for sales relating to the Kashima Office of Mitsubishi Tanabe Pharma Corporation is measured at the carrying amount because the fair value after deducting the sale cost (projected sale value) exceeds the carrying amount.

The transfer was completed in December 2021.

(2) Those related to Investment in joint venture (Sinopec Mitsubishi Chemical Polycarbonate (Beijing) Co., Ltd.), accounted for using the equity method in the Performance Products segment

The equity interest above were classified as held for sale based on the decision made by Mitsubishi Chemical Corporation on March 26, 2021 to sell them as part of portfolio reform.

The Company accordingly stopped using the equity method to the investment, and has measured the investment at fair value, after deducting sales costs. The fair value is based on the price negotiated with the buyer, etc. The hierarchy is Level 3.

On April 29, 2021, Mitsubishi Chemical Corporation and Sinopec finalized an agreement regarding the transfer of the above equity interest, completing the transfer in October 2021.

As of March 31, 2021, other components of equity related to assets held for sale were ¥924 million.

Fiscal year ended March 31, 2022

Assets held for sale and directly related liabilities as of March 31, 2022, primarily comprised the following.

(1) Shares held for strategic purposes

The Group constantly reviews the meaningfulness of cross-shareholdings. Pursuant to such review, at the end of the fiscal year ended March 31, 2022, it classified shares lacking such meaningfulness as held for sale within one year. These shares are primarily listed, and are classified as Level 1 in the fair value hierarchy.

As of March 31, 2022, other components of equity related to assets held for sale were ¥3,594 million.

Note 23

Capital

1. Common stock and Treasury Stock

Number of shares authorized and issued is as follows:

	Thousands of shares	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Number of shares authorized	6,000,000	6,000,000
Number of shares issued:		
At the beginning of the period	1,506,288	1,506,288
Increase (decrease)	—	—
At the end of the period	1,506,288	1,506,288

The Company's shares are ordinary shares without par value. The shares issued were fully paid.

Changes in the number of shares of treasury stock during the year are as follows:

	Thousands of shares	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
At the beginning of the period	86,230	85,866
Increase (note 1)	30	34
Decrease (note 2)	(394)	(700)
At the end of the period	85,866	85,200

Notes:

- An increase in the number of shares of treasury stock in the fiscal year ended March 31, 2021, was due to the purchase of 30,000 shares of less than one unit.
An increase in the number of shares of treasury stock in the fiscal year ended March 31, 2022, was due to the purchase of 34,000 shares of less than one unit.
- A decrease in the number of shares of treasury stock in the fiscal year ended March 31, 2021, was due to payments of 102,000 shares for grants of restricted stock as share-based compensation, payments of 101,000 shares through the exercise of stock options, grants of 189,000 shares from the Board Incentive Plan trust, and the sale of 2,000 shares of less than one unit.
A decrease in the number of shares of treasury stock in the fiscal year ended March 31, 2022, was due to payments of 428,000 shares for grants of restricted stock as share-based compensation, payments of 109,000 shares through the exercise of stock options, grants of 161,000 shares from the Board Incentive Plan trust, and the sale of 2,000 shares of less than one unit.
- Company stocks held by the Board Incentive Plan trust are included.
As of March 31, 2021: 2,995,000 shares and as of March 31, 2022: 2,833,000 shares

2. Additional paid-in capital and Retained Earnings

Additional paid-in capital comprises amounts arising from capital transactions that are not included in common stock. The main component is legal capital surplus and other capital

surplus. Retained earnings comprise legal retained earnings and other retained earnings.

The Japanese Company Law mandates that at least half of paid-in capital be appropriated as common stock and the rest be appropriated as a legal reserve within the legal capital surplus. Under that law, the legal capital surplus can be incorporated in common stock by resolution at a shareholders' meeting.

Amounts classified as equity elements at the time of issuance of convertible bond type bonds with stock acquisition rights are included in other capital surplus as a capital element of compound financial products.

That law requires that 10% of the surplus appropriated for dividends be retained until the total amount of the legal capital surplus and legal retained earnings reaches a quarter of the amount of common stock. The accumulated legal retained earnings can be appropriated for deficit disposition, and legal retained earnings may be available for dividends by resolution at a shareholders' meeting.

3. Other Components of Equity

Other components of equity are as follows:

(Financial Assets Measured at Fair Value through Other Comprehensive Income)

Unrealized gains on financial assets are measured at fair value through other comprehensive income.

(Remeasurement of Defined Benefit Pension Plans)

This remeasurement is for differences between actuarial assumptions at the beginning of the year and actual experience and the effects of changes in actuarial assumptions. This amount is recognized in other comprehensive income when it occurs and is immediately transferred from other components of equity to retained earnings.

(Exchange Differences on Translation of Foreign Operations)

These are the adjustments result from consolidating the financial statements of foreign operations, and the cumulative amount of effective portions of hedges from gains or losses on hedge instruments designated as net investment hedges.

(Effective Portion of Net Change in Fair Value of Cash Flow Hedges)

This is the cumulative amount of effective portions of hedges from gains or losses arising from changes in the fair value of hedging instruments relating to cash flow hedges.

Note 24

Dividends

Dividends paid to shareholders are as follows:

Fiscal year ended March 31, 2021

Date of approval	Resolution approved by	Type of shares	Amount (Millions of yen)	Amount per share (Yen)	Entitlement date	Effective date
May 26, 2020	Board of Directors	Common stock	¥17,079	¥12	March 31, 2020	June 10, 2020
November 4, 2020	Board of Directors	Common stock	¥17,080	¥12	September 30, 2020	December 2, 2020

Note:

Total dividends from a resolution of the Board of Directors on May 26, 2020, and November 4, 2020, included ¥34 million and ¥34 million, respectively, in dividends for the Company stock held by the Board Incentive Plan trust (excluding shares equivalent to the accumulated number of points granted).

Fiscal year ended March 31, 2022

Date of approval	Resolution approved by	Type of shares	Amount (Millions of yen)	Amount per share (Yen)	Entitlement date	Effective date
May 19, 2021	Board of Directors	Common stock	¥17,081	¥12	March 31, 2021	June 3, 2021
November 2, 2021	Board of Directors	Common stock	¥21,358	¥15	September 30, 2021	December 2, 2021

Note:

Total dividends from a resolution of the Board of Directors on May 19, 2021, and November 2, 2021, included ¥33 million and ¥39 million, respectively, in dividends for the Company stock held by the Board Incentive Plan trust (excluding shares equivalent to the accumulated number of points granted).

Dividends with a record date in the fiscal year ended March 31, 2022, with an effective date in the following fiscal year are as follows:

Fiscal year ended March 31, 2022

Date of approval	Resolution approved by	Type of shares	Amount (Millions of yen)	Paid from	Amount per share (Yen)	Entitlement date	Effective date
May 19, 2022	Board of Directors	Common stock	¥21,359	Retained earnings	¥15	March 31, 2022	June 3, 2022

Note:

Total dividends included ¥39 million in dividends for the Company stock held by the Board Incentive Plan trust (excluding shares equivalent to the accumulated number of points granted).

Note 25

Other Comprehensive Income

Changes in each item of other comprehensive income during the year are as follows:

	Millions of yen	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Financial assets measured at fair value through other comprehensive income:		
Amounts arising during period	¥ 38,543	¥ 6,236
Tax effects	(11,868)	(1,765)
Net amount	¥ 26,675	¥ 4,471
Remeasurements of defined benefit pension plans:		
Amounts arising during period	¥ 38,415	¥ 10,035
Tax effects	(11,598)	(2,707)
Net amount	¥ 26,817	¥ 7,328
Exchange differences on translation of foreign operations:		
Amounts arising during period	¥ 80,514	¥104,455
Reclassification adjustments	554	113
Tax effects	(49)	28
Net amount	¥ 81,019	¥104,596
Effective portion of net change in fair value of cash flow hedges:		
Amounts arising during period	¥ 621	¥ 2,758
Reclassification adjustments	(401)	298
Tax effects	(40)	(672)
Net amount	¥ 180	¥ 2,384
Share of other comprehensive income (loss) of investments accounted for using equity method:		
Amounts arising during period	¥ 2,987	¥ 4,650
Reclassification adjustments	151	—
Net amount	¥ 3,138	¥ 4,650
Total other comprehensive income	¥137,829	¥123,429

Note 26

Share-based Payment

The Company adopted the following share-based compensation plan intended primarily to promote awareness of sustainable improvement in corporate value.

1. Stock Option Plan

(1) Details of Equity-Settled Share-Based Compensation Plan

Based on a resolution of the Remuneration Committee, the Company issues share-based compensation stock options as a form of performance-related payment to its corporate executive officers (directors excluding outside directors until the fiscal year ended March 31, 2015. The same shall apply hereinafter) and executive officers, taking into consideration the Company's financial results for each fiscal year as well as the status of achieving of business targets by the corporate executive officers or executive officers (including those who have the retired) based on their degree of contribution, etc.

All stock options that the Company issues are equity-settled share-based compensation. There are no vesting conditions. The exercise period is principally 20 years from the date of grant, and is, in principle, effective for 5 years from the day after the first year after recipients lose their status as director, executive officer, executive, or corporate auditor of the Company and/or its subsidiaries.

There are no new share-based compensation stock option grants from the fiscal year ended March 31, 2020.

(2) Changes in the Number of Stock Options

	Thousands of shares	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Outstanding at the beginning of the period	925	824
Exercised	(101)	(109)
Outstanding at the end of the period	824	715
Exercisable at the end of the period	303	288

Note: No shares were granted or forfeited in the fiscal years ended March 31, 2021, or 2022.

The exercise price for all stock options is ¥1 per share.

The weighted average share prices for exercised stock options were ¥622.1 and ¥864.0 in the fiscal years ended March 31, 2021 and 2022, respectively.

The weighted average remaining contractual years of stock options outstanding at year-end were 8.7 years and 6.7 years as of March 31, 2021 and 2022, respectively.

2. Share-Based Compensation Plans using Board Incentive Plan Trusts

(1) Details of Share-Based Compensation Plans

In the fiscal year ended March 31, 2019, the Company and some subsidiaries introduced performance-based share compensation plans ("the Plans") to executive officers (through the fiscal year ended March 31, 2021), executive directors (excluding non-residents of Japan, the same applying hereafter), the president of some subsidiaries and directors and executives concurrently serving as executive officers (excluding nonresidents of Japan; executive officers and directors collectively referred to as executive officers below).

The Plans cover five consecutive fiscal years (initially, three through the fiscal year ending March 31, 2021) that correspond to the period covered by the Company's medium-term management plan. Based on assessments of progress toward corporate performance targets, each executive officer is granted a number of points each year according to the office title. The Company stocks equivalent to accumulated points calculated after the retirements of executive officers (1 point = 1 share) are provided as executive remuneration.

The Plans employ the Board Incentive Plan trust. The Company and some subsidiaries contribute funds to acquire the Company shares through the trust, which delivers the common shares to executive officers.

The Plans are accounted for as equity-settled share-based compensation.

(2) Number of Points Granted during the Period and Weighted Average Fair Value of Points

The number of points granted during the period and weighted average fair value of points are as follows. The fair value on the day points were granted uses the share price on that day since the share price on the day of grant is a close approximation of fair value.

	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Number of points granted during the period (thousands of shares)	40	219
Weighted average fair value of points (yen)	¥848.7	¥985.1

(3) Share-Based Compensation Expenses

Expenses related to this plan were ¥(13) million and ¥216 million in the fiscal years ended March 31, 2021 and 2022, respectively. These expenses were presented within Selling, general and administrative expenses and Cost of sales in the Consolidated Statement of Income.

3. Restricted Shares Compensation Plan

(1) Details of Share-based Compensation Plan

In the fiscal year ended March 31, 2021, the Company introduced a restricted share compensation plan for executive officers.

Under this plan, Compensation Committee determines the number of shares of common shares to be delivered based on the base value that reflects plan objectives, the Company's performance, the scope of responsibilities of executive officers, and other factors. Restrictions on the transfer of such common shares are lifted upon retirement from the positions of director, executive officer, or corporate officer of the Company or its subsidiaries (hereinafter, Officers, etc., of the Company), provided that such individuals continuously hold those positions from grant dates through March 31 of the following year.

Also, the Company granted restricted shares as a sign-on bonus to the president & CEO on assuming the position in the fiscal year ended March 31, 2022. One-third of the transfer restrictions are to be lifted at the end of each of three fiscal years after assuming the position. If, however, the president & CEO resigns before these restrictions are lifted, the Company will acquire shares for which transfer restrictions are not lifted, without paying compensation.

This plan is accounted for as equity-settled share-based compensation.

(2) Number of shares and weighted average fair value of shares granted during the period
The number of shares granted and the weighted average fair value of shares during the term are as follows. The Company uses share prices on grant dates, as the fair values of shares on those dates approximate share prices on those dates.

	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Number of points granted during the period (thousands of shares)	102	428
Weighted average fair value of points (yen)	¥604.5	¥804.6

(3) Share-Based Compensation Expenses

Expenses related to this plan were ¥62 million and ¥267 million in the fiscal years ended March 31, 2021 and 2022, respectively. These expenses were presented within Selling, general and administrative expenses in the Consolidated Statement of Income.

4. Performance Share Unit

(1) Details of Stock Compensation Plan

The Company introduced a performance share unit (PSU) system for executive officers from the fiscal year ended March 31, 2022. The system assesses the Company's total shareholder return (TSR) over three years to determine whether or not to grant shares and, in case it is determined to grant shares, the number of shares to grant. Based on comparison with the growth rate of the JPX-Nikkei Index 400 and comparison with the TSR of the peer group, which includes the domestic and overseas chemical and health companies with similar sales volume and market capitalization, the TSR is evaluated to determine the calculation factor ranging between 0% and 200%. In case it is determined to grant shares, the Company determines the number of shares to deliver to executive officers by using the above calculation factor multiplied by the base number of shares according to the office title. An executive officer is required to continuously hold one of the positions of corporate executive officer or executive officer for the target period of three years to qualify.

This plan is accounted for as equity-settled share-based compensation.

(2) Number of Shares Granted during Period and Weighted Average Fair Value of Shares

The base number of shares granted during the period and the weighted average fair value of the shares are as follows. The actual number of standard shares granted varied between 0% and 200% of the base number of shares. The Monte Carlo simulation is used to determine the fair value as of the grant date.

	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Number of standard shares granted during period (thousands of shares) (Note)	—	176
Weighted average fair value per standard share (yen)	¥—	¥898.7

Note: The standard number of shares for the fiscal year ended March 31, 2022, included 9,000 shares for retirees.

Key basic figures used in the Monte Carlo simulation for the Company's shares were as follows.

	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Share price on grant date	—	¥804.6
Expected dividend rate	—	2.983%
Initial share price	—	¥824.0
Volatility (Note)	—	29.562%
Risk-free interest rate	—	(0.135)%

Note:

The Group calculates volatility based on the share price from the grant date through the end of the applicable period.

(3) Share-Based Compensation Expenses

Expense related to this plan was ¥52 million in the fiscal year ended March 31, 2022. The expense was presented within Selling, general and administrative expenses in the Consolidated Statement of Income.

Note 27

Retirement Benefits The Company's consolidated subsidiaries maintain lump-sum retirement and retirement benefit plans. The retirement benefit plans are defined benefit (fund- and contract-type) and defined contribution plans. Some consolidated subsidiaries also maintain welfare pension plans.

1. Defined Benefit Plans

The defined benefit plans of the Company's consolidated subsidiaries are mainly cash balance pension plans. Benefits under these plans are based on such conditions as years of service, points gained from results and contributions during employment. Investment yields are determined after taking into consideration such as the yields of 10-year national government bonds.

Cash balance pension plans are managed by corporate pension funds that are legally separated from the consolidated subsidiaries of the Company pursuant to Japan's Defined Benefit Corporate Pension Plan Act. Consolidated subsidiaries, or pension fund directors, and pension investment management institutions are legally required to accord top priority to plan participants, and must manage plan assets based on prescribed policies.

Contract-type cash balance plans are run in line with Bureau of Health and Welfare-approved pension provisions. The management and operation of reserve funds is through contracts with trust banks and other entrusted management institutions on the basis of duty of care and damages stipulations for trustees.

Funded cash balance pension plans are run by corporate pension funds. If fund directors neglect to faithfully discharge their duties concerning reserve management and operations, they assume liability for fund damages.

As of April 1, 2022, some domestic consolidated subsidiaries decided to switch from retirement defined benefit plans to defined contribution pension plans and prepaid retirement allowance plans. They also decided to revise their rules to extend the retirement age from 60 years of age, to 65. The Group recognized the loss on revision of retirement benefit plan and prior service cost associated with these decisions in the fiscal year ended March 31, 2022.

Defined benefit plan amounts in the Consolidated Statement of Financial Position are as follows:

	Millions of yen	
	As of March 31, 2021	As of March 31, 2022
Present value of the defined benefit obligation	¥584,556	¥563,660
Fair value of the plan assets	(531,910)	(511,881)
Net defined benefit liabilities	¥ 52,646	¥ 51,779
Retirement benefit liabilities	¥112,272	¥103,941
Retirement benefit assets	(59,626)	(52,162)
Net defined benefit liabilities	¥ 52,646	¥ 51,779

For defined benefit plans, amounts recognized as expenses in the Consolidated Statement of Income are as follows:

	Millions of yen	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Current service cost	¥19,142	¥18,462
Prior service cost	(473)	497
Interest expense	3,933	3,759
Interest income	(4,315)	(4,264)
Loss on revision of retirement benefit plan	—	4,027
Total	¥18,287	¥22,481

Changes in the present value of the defined benefit obligation are as follows:

	Millions of yen	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Outstanding at the beginning of the period	¥577,815	¥584,556
Current service cost	19,142	18,462
Interest expense	3,933	3,759
Remeasurements:		
Actuarial gains and losses arising from changes in demographic assumptions	(246)	(308)
Actuarial gains and losses arising from changes in financial assumptions	10,247	(9,132)
Other	813	1,894
Benefits paid	(36,587)	(39,077)
Prior service cost	(473)	497
Retirement benefit plan liquidation and downsizing	—	(6,475)
Impact of retirement benefit plan revisions	—	4,027
Exchange differences on translation of foreign operations	9,912	5,457
Outstanding at the end of the period	¥584,556	¥563,660

Changes in the fair value of plan assets are as follows:

	Millions of yen	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Outstanding at the beginning of the period	¥487,533	¥531,910
Interest income	4,315	4,264
Remeasurements:		
Return on plan assets	49,229	2,489
Contributions by the employer	11,407	5,908
Benefits paid	(29,743)	(32,661)
Retirement benefit plan liquidation and downsizing	—	(6,475)
Exchange differences on translation of foreign operations	9,169	6,446
Outstanding at the end of the period	¥531,910	¥511,881

The principal actuarial assumptions used to calculate present values of defined benefit obligations are as follows:

	As of March 31, 2021	As of March 31, 2022
Discount rate	0.70%	0.87%

In the event of changes in the discount rate, the principal actuarial assumption, the impact on the present value of defined benefit obligation as of March 31, 2021 and 2022 would be as follows. This sensitivity analysis assumes that all actuarial assumptions other than that subject to analysis are held constant.

	As of March 31, 2021	As of March 31, 2022
Increase by 0.5%	¥(29,528)	¥(29,011)
Decrease by 0.5%	24,738	28,795

Note:

The discount rate is determined by referring to yields on high-quality bonds with maturities similar to periods in which benefits are anticipated. The sensitivity analysis is therefore based on a minimum reasonable discount rate of 0%.

The fair value of plan assets are as follows:

As of March 31, 2021

	Fair value with quoted prices in active markets		Fair value without quoted prices in active markets	Total
Cash and cash equivalents	¥ 11,453	¥	—	¥ 11,453
Equity instruments				
Domestic equities	38,672		—	38,672
Foreign equities	19,818		—	19,818
Other	—		91,798	91,798
Debt instruments				
Domestic bonds	3,364		—	3,364
Foreign bonds	49,318		—	49,318
Other	—		159,707	159,707
General accounts of life insurance companies	—		121,201	121,201
Other	—		36,579	36,579
Total	¥122,625		¥409,285	¥531,910

As of March 31, 2022

	Fair value with quoted prices in active markets		Fair value without quoted prices in active markets	Total
Cash and cash equivalents	¥114,825	¥	—	¥114,825
Equity instruments				
Domestic equities	17,571		—	17,571
Foreign equities	6,654		—	6,654
Other	—		61,756	61,756
Debt instruments				
Domestic bonds	3,289		—	3,289
Foreign bonds	28,658		—	28,658
Other	—		120,274	120,274
General accounts of life insurance companies	—		124,042	124,042
Other	—		34,812	34,812
Total	¥170,997		¥340,884	¥511,881

The Company's consolidated subsidiaries secure the total investment returns required within an acceptable range of risk to sufficiently fund payments of pension benefits and lump-sum payments, and endeavor to minimize long-term contributions and amass financing for payments of benefits.

To achieve targeted rates of return, management sets percentages of policy assets based on medium- to long-term perspectives, reviewing them regularly, and endeavors to maximize returns in keeping with risk assumptions.

Standard and special contributions to defined benefit plans cover the expenses necessary to provide benefits.

In keeping with laws and regulations, the Company regularly recalculates pension financing to balance pension funding for the future. The recalculations review basal rates (including projected mortality, withdrawal, and interest rates) related to setting contributions, and validating premiums.

Scheduled contributions to plan assets for the year ending March 31, 2023 are ¥6,060 million.

The Company's consolidated subsidiaries may pay premium benefits to employees on retirement.

Some domestic consolidated subsidiaries have established retirement benefits trusts.

The weighted average durations of defined benefit plan obligations as of March 31, 2021 and 2022 were 11.0 years and 11.1 years, respectively.

2. Defined Contribution and Public Plans

Amounts recognized as expenses under defined contribution and public plans are as follows:

	Millions of yen	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Defined contribution plan cost	¥ 8,007	¥ 9,045
Public plan cost	23,766	23,653

Note 28

Provisions

The breakdowns and schedule of provisions are as follows:

Fiscal year ended March 31, 2021

	Millions of yen				
	Asset retirement obligations	Provision for litigation	Provision for environmental measures	Other	Total
As of April 1, 2020	¥22,711	¥6,696	¥4,073	¥ 6,381	¥39,861
Arising during the year	757	60	13	8,858	9,688
Interest cost associated with passage of time	406	10	—	3	419
Utilized	(714)	(664)	(1,306)	(1,760)	(4,444)
Unused amounts reversed	(5,487)	(24)	—	(1,698)	(7,209)
Exchange differences on translation of foreign operations	411	—	2	223	636
Other	(5)	—	(30)	172	137
As of March 31, 2021	¥18,079	¥6,078	¥2,752	¥12,179	¥39,088
Current liabilities	¥439	¥ —	¥ —	¥11,251	¥11,690
Non-current liabilities	17,640	6,078	2,752	928	27,398
Total	¥18,079	¥6,078	¥2,752	¥12,179	¥39,088

Note:

An increase during the period under review includes a provision for loss related to plant closure related to a decision to terminate production and close MMA monomer and MAA plants in Beaumont, Texas. See Note 9 Other Operating Income and Other Operating Expenses for details

Fiscal year ended March 31, 2022

	Millions of yen				
	Asset retirement obligations	Provision for litigation	Provision for environmental measures	Other	Total
As of April 1, 2021	¥18,079	¥6,078	¥2,752	¥12,179	¥39,088
Arising during the year	2,396	690	3	4,951	8,040
Interest cost associated with passage of time	364	10	—	—	374
Utilized	(2,531)	(518)	(772)	(4,799)	(8,620)
Unused amounts reversed	(406)	—	(2)	(2,166)	(2,574)
Exchange differences on translation of foreign operations	1,218	—	7	427	1,652
Other	218	—	—	96	314
As of March 31, 2022	¥19,338	¥6,260	¥1,988	¥10,688	¥38,274
Current liabilities	¥ 5,844	¥ 16	¥ 195	¥ 9,546	¥15,601
Non-current liabilities	13,494	6,244	1,793	1,142	22,673
Total	¥19,338	¥6,260	¥1,988	¥10,688	¥38,274

Asset retirement obligations

The Company covers recovery obligations for the rental real estate of the Group by recording projected payments based on historical amounts. These expenses are expected to be paid after one year or more; however, they may be affected by future business plans.

Reserves for Possible Losses in Connection with Litigation

Reserves for possible losses in connection with litigation are set aside for payments to settle lawsuits and in preparation for payments that may arise in the future. The main provisions for loss on litigation are as follows:

(1) Reserve for Health Management Allowances for HIV Compensation

To provide for future payments of health management allowances in connection with a lawsuit for damages filed by plaintiffs infected with HIV, the consolidated subsidiary, Mitsubishi Tanabe Pharma Corporation (MTPC) has set aside an estimated amount for such future payments.

Based on a letter confirming a settlement concluded in March 1996, an amount equivalent to the present value of the estimated future expenditure based on the payments to date for AIDS patients who have reached a settlement is recognized.

(2) Reserve for Health Management Allowances for Sub-acute Myelo-Optical Neuropathy (SMON) Compensation

MTPC has made a provision in the accompanying consolidated financial statements for the estimated future medical treatment payments to be made over the remaining lives of the parties entitled to such payments under the compromise settlement.

(3) Reserve for HCV Litigation

To provide for losses that may arise in the future from a settlement of lawsuits filed by plaintiffs infected with HCV (hepatitis C virus), MTPC has set aside an estimated amount for payments related to such settlement based on estimates of the number of people receiving relief and the amount of relief payments required under a law which stipulates that relief be provided to people who contacted hepatitis C from specific fibrinogen products or specific coagulation factor IX products.

Reserve for environmental measures

The Company records estimated losses to cover future losses from construction and environmental remediation activities. These expenses are expected to be paid after one year or more; however, they may be affected by future business plans.

Note 29

Bonds and Borrowings

The breakdown of bonds and borrowings is as follows:

	Millions of yen	
	As of March 31, 2021	As of March 31, 2022
Short-term borrowings	¥ 314,606	¥ 237,779
Current portion of long-term borrowings	125,109	124,054
Commercial paper	67,000	7,000
Current portion of bonds	50,000	20,000
Current portion of convertible bond-type bonds with subscription rights to shares	74,854	—
Loans due to the transfer of trade receivables	18,961	18,773
Loans due to the transfer of trade receivables of subsidiaries	2,945	3,607
Bonds	507,050	582,111
Convertible bond-type bonds with subscription rights to shares	74,303	74,535
Long-term borrowings	1,114,676	1,092,110
Total	¥2,349,504	¥2,159,969
Current liabilities	¥ 653,475	¥ 411,213
Non-current liabilities	1,696,029	1,748,756
Total	¥2,349,504	¥2,159,969

Bonds and borrowings are classified as financial liabilities measured at amortized cost.

The average interest rates for short- and long-term borrowings as of March 31, 2021 were 0.513% and 0.949%, respectively.

The average interest rates for short- and long-term borrowings as of March 31, 2022 were 0.721% and 0.983%, respectively.

Repayment terms for long-term borrowings are from 2022 to 2059.

Loans due to the transfer of trade receivables are liabilities for transfers that do not meet the criteria for derecognition as financial assets.

Borrowings by consolidated subsidiaries from trade receivable transfers are liabilities related to transfers to consolidated subsidiaries.

The breakdown of bonds is as follows:

Millions of yen

Note	Name of bond	Term	Interest rate	As of March 31, 2021	As of March 31, 2022
1	2nd unsecured bond	2011-2021	1.204%	¥ 10,000	¥ —
1	9th unsecured bond	2013-2023	1.226%	10,000	10,000
1	12th unsecured bond	2013-2023	0.918%	15,000	15,000
1	14th unsecured bond	2014-2021	0.482%	15,000	—
1	15th unsecured bond	2014-2024	0.800%	15,000	15,000
1	16th unsecured bond	2015-2022	0.433%	10,000	10,000
1	17th unsecured bond	2015-2025	0.755%	10,000	10,000
1	19th unsecured bond	2015-2022	0.476%	10,000	10,000
1	20th unsecured bond	2015-2025	0.711%	10,000	10,000
1	21st unsecured bond	2016-2021	0.120%	10,000	—
1	22nd unsecured bond	2016-2026	0.320%	10,000	10,000
1	23rd unsecured bond	2016-2036	0.850%	20,000	20,000
1	24th unsecured bond	2018-2028	0.370%	15,000	15,000
1	25th unsecured bond	2018-2038	0.890%	15,000	15,000
1	26th unsecured bond	2018-2028	0.410%	12,000	12,000
1	27th unsecured bond	2018-2038	1.000%	8,000	8,000
1	28th unsecured bond	2018-2048	1.380%	5,000	5,000
1	29th unsecured bond	2019-2029	0.330%	10,000	10,000
1	30th unsecured bond	2019-2039	0.830%	12,000	12,000
1	31st unsecured bond	2019-2049	1.214%	8,000	8,000
1	32nd unsecured bond	2020-2027	0.230%	20,000	20,000
1	33rd unsecured bond	2020-2030	0.280%	20,000	20,000
1	34th unsecured bond	2020-2040	0.690%	29,833	29,841
1	35th unsecured bond	2020-2025	0.190%	25,000	25,000
1	36th unsecured bond	2020-2030	0.400%	15,000	15,000
1	37th unsecured bond	2020-2040	0.830%	10,000	10,000
1	38th unsecured bond	2020-2030	0.360%	10,000	10,000
1	39th unsecured bond	2020-2040	0.770%	10,000	10,000
1	40th unsecured bond	2021-2026	0.090%	—	20,000
1	41st unsecured bond	2021-2031	0.330%	—	20,000
1	42nd unsecured bond	2021-2041	0.740%	—	29,830
2	13th unsecured bond	2016-2021	0.140%	15,000	—
2	14th unsecured bond	2016-2026	0.390%	15,000	15,000
2	15th unsecured bond	2019-2024	0.130%	19,928	19,948
2	16th unsecured bond	2019-2026	0.190%	9,955	9,963
2	17th unsecured bond	2019-2029	0.300%	19,910	19,921
2	1st unsecured bond	2021-2026	0.110%	—	15,000
2	2nd unsecured bond	2021-2031	0.280%	—	10,000
3	1st series deferrable interest and callable unsecured subordinated bonds	2019-2054	1.410%	99,496	99,671
4	2nd series deferrable interest and callable unsecured subordinated bonds	2019-2059	1.870%	7,928	7,937
	Subtotal			¥557,050	¥602,111
1	Zero coupon convertible bond-type bonds with subscription rights to shares due 2022	2017-2022	0.196%	74,854	—
1	Zero coupon convertible bond-type bonds with subscription rights to shares due 2024	2017-2024	0.312%	74,303	74,535
	Subtotal			149,157	74,535
	Total			¥706,207	¥676,646

Notes:

1. These corporate bonds are issued by the Company.
2. These corporate bonds are issued by Nippon Sanso Holdings Corporation, a domestic consolidated subsidiary.
3. These corporate bonds are issued by Nippon Sanso Holdings Corporation, a domestic consolidated subsidiary. A fixed interest rate from the day following January 29, 2019 to January 29, 2024 and a variable interest rate from the day following January 29, 2024 (with a step-up in the interest rate scheduled for January 30, 2024).
4. These corporate bonds are issued by Nippon Sanso Holdings Corporation, a domestic consolidated subsidiary. A fixed interest rate from the day following January 29, 2019 to January 29, 2029 and a variable interest rate from the day following January 29, 2029 (with a step-up in the interest rate scheduled for January 30, 2029).

Assets pledged as collateral and collateralized obligations are as follows:

Assets pledged as collateral

	Millions of yen	
	As of March 31, 2021	As of March 31, 2022
Buildings and structures	¥ 6,842	¥ 6,874
Machinery and vehicles	10,888	9,113
Land	6,532	6,537
Other	1,680	1,699
Total	¥25,942	¥24,223

Collateralized obligations

	Millions of yen	
	As of March 31, 2021	As of March 31, 2022
Trade payables	¥ 226	¥ 105
Short-term borrowings	51	58
Current portion of long-term borrowings	1,537	838
Long-term borrowings	6,373	5,762
Other	25	29
Total	¥8,212	¥6,792

Note 30

Changes in Liabilities Relating to Financing Activities

Changes in liabilities relating to financing activities are as follows:

Fiscal year ended March 31, 2021

	Millions of yen				
	Short-term borrowings	Commercial paper	Long-term borrowings (Note)	Bonds (Note)	Lease liabilities (Note)
As of April 1, 2020	¥446,775	¥70,000	¥1,075,877	¥690,602	¥104,806
Cash flows	(115,453)	(3,000)	129,742	14,640	(30,349)
Changes from acquisition or loss of control over subsidiaries or other businesses	1,178	—	2,738	—	—
Changes owing to new leases and contract changes, etc.	—	—	—	—	54,846
Impact of foreign exchange rate fluctuations, etc.	4,012	—	31,428	965	3,615
As of March 31, 2021	¥336,512	¥67,000	¥1,239,785	¥706,207	¥132,918

Note: Including amounts due or scheduled for redemption within one year.

Fiscal year ended March 31, 2022

	Short-term borrowings	Commercial paper	Long-term borrowings (Note)	Bonds (Note)	Millions of yen Lease liabilities (Note)
As of April 1, 2021	¥336,512	¥67,000	¥1,239,785	¥706,207	¥132,918
Cash flows	(89,129)	(60,000)	(64,084)	(30,364)	(32,349)
Changes from acquisition or loss of control over subsidiaries or other businesses	150	—	2,421	—	7
Changes owing to new leases and contract changes, etc.	—	—	—	—	24,290
Impact of foreign exchange rate fluctuations, etc.	12,626	—	38,042	803	5,034
As of March 31, 2022	¥260,159	¥ 7,000	¥1,216,164	¥676,646	¥129,900

Note: Including amounts due or scheduled for redemption within one year.

Note 31

Other Financial Liabilities

The breakdown of other financial liabilities is as follows:

	Millions of yen	
	As of March 31, 2021	As of March 31, 2022
Accounts payable-other	¥117,000	¥120,838
Accrued expenses	83,059	98,273
Lease liabilities	132,918	129,900
Deposits	34,942	31,638
Other	22,722	23,142
Total	¥390,641	¥403,791
Current liabilities	¥272,341	¥291,237
Non-current liabilities	118,300	112,554
Total	¥390,641	¥403,791

Other financial liabilities are mainly classified as financial liabilities measured at amortized cost.

Note 32

Lease Transactions

1. Profit or Loss and Cash Outflows Related to Lease Transactions

Profit or loss and cash outflows related to lease transactions are as follows.

	Millions of yen	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Depreciation of right-of-use assets		
Underlying assets of land, buildings and structures	¥17,201	¥16,172
Underlying assets of machinery and vehicles	5,646	5,444
Underlying assets of tools, furniture and fixtures	2,683	2,711
Total	¥25,530	¥24,327
Expenses related to short-term leases	¥ 877	¥ 947
Expenses related to leases of low-value assets	10,333	11,501
Variable lease payments	253	225
Total cash outflows for leases	¥41,812	¥45,022

2. Additional Information Related to Lease Transactions

Many of the leasing activities of the Group entail real estate leasing, with land and buildings being leased mainly as office and factory land. To provide business flexibility, some leases contain extension and termination options. The Group assesses whether it is reasonably certain to exercise extension options (or not to exercise termination options) and determines the lease periods.

Under the Group's leasing activities, there are no significant restrictions or covenants imposed by leasing or sale and leaseback transactions.

Note 33

Other Liabilities The breakdown of other liabilities is as follows:

	Millions of yen	
	As of March 31, 2021	As of March 31, 2022
Suspense receipt (Note 1)	¥ 75,336	¥104,643
Employees' bonuses	40,841	68,540
Contract liability	38,678	42,266
Employees' paid leave related obligations	35,153	36,528
Accrued consumption taxes	21,305	12,279
Social insurance premiums received	2,679	2,524
Advances received (Note 2)	1,748	1,397
Other	45,901	57,648
Total	¥261,641	¥325,825
Current liabilities	¥147,911	¥178,613
Non-current liabilities	113,730	147,212
Total	¥261,641	¥325,825

Notes:

1. Suspense receipt include amounts recorded as liability for some royalties without recognizing revenue. See Note 6 Sales Revenues for details.
2. Advances related to items other than sales revenue.

Note 34

Trade Payables Trade payables are as follows:

	Millions of yen	
	As of March 31, 2021	As of March 31, 2022
Accounts payable	¥382,272	¥486,874

Trade payables are classified as financial liabilities measured at amortized cost.

Note 35

Financial Instruments

1. Capital Management

The newly defined strategy and organizational structure allow us to quickly respond to accelerating changes in social needs and the business environment while maximizing growth and profitability in the future low-carbon economy. Financial performance indicators relating to capital management are as follows.

	As of or fiscal year ended March 31, 2021	As of or fiscal year ended March 31, 2022
Return on Equity (ROE) (Note 1)	(0.6)%	13.2%
Net D/E ratio (Note 2)	1.73	1.40

Notes:

1. Net income attributable to owners of the parent / equity attributable to owners of the parent (averages of beginning and end of fiscal years)
2. Net interest-bearing debt*1 / equity attributable to owners of the parent (end of fiscal years)
*1 Net interest-bearing debt = Interest-bearing debt - (cash and cash equivalents + cash reserves*2)
*2 Cash reserves comprise certificates of deposits, securities, and other instruments other than cash equivalents that the Group holds to manage surplus funds.

2. Financial Risk Management

The Group is exposed to financial risks in the course of doing business in an array of fields around the world. It manages risks based on certain policies to reduce or avoid such risks. The policy with derivatives transactions is to restrict their use to actual demand. The Group does not enter into derivative transactions for speculative purposes. The relevant officers are

informed about contract balances, fair value, and other elements of these transactions based on internal regulations for transaction authority and limits.

3. Credit Risk

The Group is exposed to customer credit risk for trade and other receivables acquired in the course of business. The securities that the Group holds are exposed to the credit risk of issuers. Derivatives transactions that the Group conducts to hedge financial risks are exposed to the credit risks of counterparty financial institutions.

In keeping with its credit management rules, the Group regularly monitors the trade receivables and long-term loans of major customers, oversees due dates and balances for each counterparty, and endeavors to swiftly identify and mitigate collections concerns arising from deteriorating financial positions. The Group only invests in bonds with high ratings, so credit risk is inconsequential. Derivatives transactions are only entered into with financial institutions with high credit ratings to minimize credit risk from nonperformance by counterparties. The Group prevents excessive concentrations of credit risk through special management procedures.

At the end of the fiscal year, the Group recognizes impairment losses based on historical rates to the Allowance for doubtful accounts, for significant uncollectible financial assets, and for insignificant financial assets. The Allowance for doubtful accounts relating to such assets is included in Trade receivables and Other financial assets in the Consolidated Statement of Financial Position.

Changes in the Allowance for doubtful accounts, measured at amounts equivalent to projected losses for the entire period, are as follows.

There were no significant differences between projected 12-month credit losses on loans and the projected credit losses for the entire period.

	Millions of yen	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Outstanding at the beginning of the period	¥10,179	¥11,554
Addition	1,968	1,383
Decrease (intended use)	(1,378)	(1,517)
Decrease (reversal)	(629)	(941)
Other	1,414	646
Outstanding at the end of the period	¥11,554	¥11,125

The maximum exposure to the credit risks of financial assets is the carrying amount after impairment presented in the Consolidated Statement of Financial Position.

The Group holds real estate, securities, etc. as collateral for receivables against certain customers.

Maximum exposure on credit risk of financial guarantee contracts is the amount of guarantee obligations etc. described in Note 39 Contingent Liabilities.

4. Liquidity Risk

The Group's trade payables obligations and borrowings are exposed to liquidity risk. The Group manages this risk by producing cash plan and ensuring liquidity by maintaining commitment lines with several financial institutions.

Outstanding financial liabilities (including derivative financial instruments) by fiscal year are as follows:

As of March 31, 2021

	Millions of yen								
	Carrying amount	Contractual cash flow	Due within one year	Due after one year through two years	Due after two years through three years	Due after three years through four years	Due after four years through five years	Due after five years	
Non-derivative financial liabilities:									
Trade payables	¥ 382,272	¥ 382,272	¥382,272	¥ —	¥ —	¥ —	¥ —	¥ —	¥ —
Short-term borrowings	336,512	336,512	336,512	—	—	—	—	—	—
Commercial paper	67,000	67,000	67,000	—	—	—	—	—	—
Bonds	706,207	708,000	125,000	20,000	100,000	35,000	45,000	383,000	
Long-term borrowings	1,239,785	1,245,217	125,109	118,407	151,731	154,350	97,141	598,479	
Lease obligations	132,918	141,432	27,558	22,448	17,769	13,365	14,929	45,363	
Accounts payable-other	117,000	117,000	117,000	—	—	—	—	—	—
Accrued expenses	83,059	83,059	83,059	—	—	—	—	—	—
Others	57,466	57,470	46,667	495	441	2	24	9,841	
Derivative liabilities:									
Foreign exchange forward contracts	¥ 118	¥ 118	¥ 118	¥ —	¥ —	¥ —	¥ —	¥ —	¥ —
Currency swaps	2	2	1	1	—	—	—	—	—
Interest rate swaps	78	78	11	11	11	41	4	—	—

As of March 31, 2022

	Millions of yen								
	Carrying amount	Contractual cash flow	Due within one year	Due after one year through two years	Due after two years through three years	Due after three years through four years	Due after four years through five years	Due after five years	
Non-derivative financial liabilities:									
Trade Payables	¥ 486,874	¥ 486,874	¥486,874	¥ —	¥ —	¥ —	¥ —	¥ —	¥ —
Short-term borrowings	260,159	260,159	260,159	—	—	—	—	—	—
Commercial paper	7,000	7,000	7,000	—	—	—	—	—	—
Bonds	676,646	678,000	20,000	100,000	35,000	45,000	90,000	388,000	
Long-term borrowings	1,216,164	1,220,802	124,054	160,304	164,166	109,257	94,516	568,505	
Lease obligations	129,900	134,762	30,335	20,712	15,930	13,081	10,630	44,074	
Accounts payable-other	120,838	120,838	120,838	—	—	—	—	—	—
Accrued expenses	98,273	98,273	98,273	—	—	—	—	—	—
Others	54,677	54,677	42,795	506	252	93	135	10,896	
Derivative liabilities:									
Foreign exchange forward contracts	¥ 102	¥ 102	¥ 102	¥ —	¥ —	¥ —	¥ —	¥ —	¥ —
Interest rate swaps	1	1	—	—	1	—	—	—	—

For financial guarantee agreements, maximum amounts based on performance requests are the outstanding guaranteed liabilities described in Note 39 Contingent Liabilities.

The total commitment line and borrowing balance is as follows:

	Millions of yen	
	As of March 31, 2021	As of March 31, 2022
Total commitment line	¥136,432	¥137,741
Borrowing balance	—	4,896
Unused balance	¥136,432	¥132,845

We are also diversifying funding, notably by obtaining uncommitment-based overdraft facilities with several financial institutions and by securing frameworks to issue commercial paper or register corporate bond issues.

5. Foreign Exchange Risk

Foreign currency denominated receivables and payables from the Group's global operations are exposed to foreign exchange fluctuation risk. The Group uses foreign exchange forward contracts and currency swaps as needed to hedge against the foreign currency risk associated with such receivables and payables.

The Group's net investments in foreign operations are exposed to foreign exchange fluctuation risk. The Group hedges such risk as needed using foreign currency-denominated loans.

Foreign Exchange Sensitivity Analysis

If the yen at the end of the fiscal year was 1% higher against the U.S. dollar and the euro for the foreign currency denominated financial instruments that the Group held at the year end, the impact on income before taxes in the Consolidated Statement of Income would be as follows.

This analysis is based on multiplying each currency risk exposure by 1%, based on the assumption that other variables (including other foreign exchange rates and interest rates) are held constant.

	Millions of yen	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
U.S. dollar (1% appreciation of yen)	¥(143)	¥(97)
Euro (1% appreciation of yen)	(25)	(35)

6. Interest Rate Risk

Interest rate risk within the Group arises from interest-bearing debt net of cash equivalents. The Group raises funds needed to do business and make capital investments through borrowings and the issuance of corporate bonds. Borrowings and corporate bonds with floating rates are exposed to interest rate fluctuation risk.

The Group uses derivatives transactions (including interest rate swaps) to hedge against interest rate fluctuation risk.

Interest Rate Sensitivity Analysis

In the event the interest rate on financial instruments that the Group holds at the end of each fiscal year increases by 100 basis points, the impact on income before taxes in the Consolidated Statement of Income would be as follows:

The analysis is for financial instruments affected by interest rate fluctuations and assumes that other factors, including the impacts of foreign exchange fluctuations, are held constant.

	Millions of yen	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Income before taxes	¥(3,332)	¥(3,079)

Impact of Interest Rate Benchmark Reform

The Group formulated a response policy after assessing interest rate benchmark reform trends and their impacts for the purpose of transitioning borrowing and interest rate swap contracts referencing the London Inter-Bank Offered Rate to an alternative interest rate

benchmark. As of the end of the fiscal year ended March 31, 2022, the transition had yet to be completed for certain U.S. dollar borrowing and interest rate swap agreements.

The Group's interest rate swap agreements primarily exchange floating rate receipts for fixed rate payments. For interest rate swap contracts not transitioned to alternative interest rate benchmarks as of the end of the fiscal year ended March 31, 2022, the Group looks to conclude agreements to transition to equivalent alternative interest rate benchmarks at the same time as modifying hedged borrowing contracts.

The Group will continue to apply IFRS 9 and hedge accounting until uncertainties associated with interest rate benchmark reforms end. The Group expects such uncertainty to persist until it finalizes details of an agreement to transition to an alternative interest rate benchmark.

As of March 31, 2022, the carrying amount of borrowing contracts for which the Group had yet to complete transitions to an alternative interest rate benchmark and were affected by interest rate benchmark reform was ¥86,000 million. The notional amount of interest rate swap contracts was ¥51,648 million.

7. Market Price Fluctuation Risk

The Group's securities holdings are exposed to market price fluctuation risk.

With respect to securities, the Group regularly reviews the fair value and financial positions of issuers (business partners), and constantly reviews holdings by taking into account its relationships with business partners.

8. Fair Value of Financial Instruments

Financial instruments are classified into the following three-level fair value hierarchy:

- Level 1: Unadjusted quoted prices for identical assets or liabilities in active markets
- Level 2: Valuations measured by direct or indirect observable inputs other than Level 1
- Level 3: Valuations measured by significant unobservable inputs

The Company determines transfers between levels of the fair value hierarchy of the financial instruments at the end of each fiscal year.

In the fiscal years ended March 31, 2021, and 2022, some of the shares were transferred from Level 3 to Level 1 due to the listing of the investees on the stock exchange.

At the end of the second quarter of the fiscal year ended March 31, 2022, the Company shares of PHC Holdings Corporation were transferred from Level 3 to Level 2 in response to a decision to list on the stock exchange. At the end of the third quarter of the fiscal year ended March 31, 2022, the shares of PHC Holdings Corporation were transferred from Level 2 to Level 1 following the listing on the stock exchange.

There were no other transfers between levels.

(1) Financial instruments measured at fair value on a recurring basis

Financial assets and liabilities measured at fair value on a recurring basis were as follows:

As of March 31, 2021

	Level 1	Level 2	Level 3	Total
Millions of yen				
Assets				
Stocks and investments	¥86,261	¥ —	¥133,110	¥219,371
Stocks and investments held for sale	4,465	—	212	4,677
Derivatives	—	347	—	347
Total	¥90,726	¥347	¥133,322	¥224,395
Liabilities				
Derivatives	¥ —	¥198	¥ —	¥ 198
Total	¥ —	¥198	¥ —	¥ 198

As of March 31, 2022

	Millions of yen			
	Level 1	Level 2	Level 3	Total
Assets				
Stocks and investments	¥84,986	¥ —	¥108,902	¥193,888
Stocks and investments held for sale	6,548	—	147	6,695
Financial assets related to contingent consideration agreements	—	—	2,956	2,956
Derivatives	—	3,458	—	3,458
Total	¥91,534	¥3,458	¥112,005	¥206,997
Liabilities				
Derivatives	¥ —	¥ 103	¥ —	¥ 103
Total	¥ —	¥ 103	¥ —	¥ 103

Stocks and investments

The fair value of marketable shares classified as Level 1 is based on unadjusted quoted prices in active markets for identical assets or liabilities.

The fair value of unlisted shares in Level 2 is calculated using initial public offering prices and others.

The fair value of Level 3 unlisted shares and investments for which quoted prices in active markets are unavailable is calculated by using reasonably available inputs through similar company comparisons or other appropriate valuation techniques. Illiquidity discounts are added as needed.

Financial Assets Related to Contingent Consideration Agreements

The fair value of financial assets related to Level 3 contingent consideration agreements are primarily financial assets which arose from the transfers of polycrystalline alumina fiber business. The Black-Scholes model is used to calculate the fair value of these financial assets, taking future business performances and other relevant factors into account.

Derivative assets and liabilities

The fair value of Level 2 derivative assets and liabilities is based on such observable inputs as prices provided by counterparty financial institutions or exchange and interest rates and such like.

The fair value of Level 3 financial instruments is calculated by valuation specialists determining valuation methods for each relevant financial instrument in accordance with valuation policies and procedures that include valuation methods for fair value calculations approved by suitably authorized personnel.

Changes in Level 3 financial instruments are as follows:

	Millions of yen	
	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Balance at beginning of period	¥117,442	¥133,322
Other comprehensive income (Note 1)	13,531	27,947
Purchase and share exchange acceptance	2,651	3,111
Recognized based on contingent consideration agreements	—	2,956
Sales or redemptions	(118)	(830)
Transfer from Level 3 (Note 2)	(522)	(57,161)
Others	338	2,660
Balance at end of period	¥133,322	¥112,005

Notes:

1. Included in "Financial assets measured at fair value through other comprehensive income" in the

Consolidated Statement of Comprehensive Income

2. This stemmed from the listings (and decisions to do so) of some investees. Transfers from Level 3 in the fiscal year ended March 31, 2022, includes a transfer from the decision of PHC Holdings Corporation's listing.

(2) Financial instruments measured at amortized cost

The carrying amounts and estimated fair values of the financial instruments measured at amortized cost are as follows:

As of March 31, 2021

	Carrying amounts	Fair value				Millions of yen
		Level 1	Level 2	Level 3	Total	
		Liabilities:				
Long-term borrowings	¥1,239,785	¥ —	¥1,250,455	¥ —	¥1,250,455	
Bonds	706,207	—	710,660	—	710,660	
Total	¥1,945,992	¥ —	¥1,961,105	¥ —	¥1,961,105	

As of March 31, 2022

	Carrying amounts	Fair value				Millions of yen
		Level 1	Level 2	Level 3	Total	
		Liabilities:				
Long-term borrowings	¥1,216,164	¥ —	¥1,216,479	¥ —	¥1,216,479	
Bonds	676,646	—	674,798	—	674,798	
Total	¥1,892,810	¥ —	¥1,891,277	¥ —	¥1,891,277	

The carrying amounts of financial assets and liabilities measured at amortized cost, other than debt securities, long-term borrowings and bonds presented in the tables above, are approximately the same as the fair values of such financial assets and liabilities.

Long-term borrowings

The fair value of Level 2 long-term loans is based on the present value, calculated by discounting the total principal and interest by the interest rate assumed for similar new borrowings.

Bonds

The fair value of Level 2 corporate bonds is based on the market price.

9. Transfers of Financial Assets

The Group transfers some trade receivables to a business entity comprising third-party financial institutions. The entity operates as part of these institutions and purchases a large amount of assets from customers other than those of the Group, so trade receivables that the Group transferred constitute a small proportion of the entity's total assets. The relevance of the Group to the assessment of exposure to the risks of this entity is therefore low.

(1) Transfers of financial assets that are not derecognized in their entirety

The trade receivables transferred that do not qualify for derecognition remain included in trade receivables. The considerations received for the transfer are included in bonds and borrowings in the Consolidated Statement of Financial Position. The carrying amounts of the transferred trade receivables in the fiscal years ended March 31, 2021, and 2022, were ¥7,811 million and ¥9,057 million, respectively. The carrying amounts of borrowings for the same periods were ¥18,961 million and ¥18,773 million, respectively. The difference in carrying amounts is due to the retained portion of the trade receivables and the difference between the timing of collection of trade receivables and repayment of borrowings. If debtors defaulted on these trade receivables, the Group would be deemed to hold most of the risks and economic value of ownership of the transferred assets, as payment obligations would revert to the Group.

(2) Transfers of financial assets that are derecognized in their entirety

In the fiscal years ended March 31, 2021 and 2022, expenses arising from transfers of trade receivables that were derecognized in their entirety were ¥228 million and ¥345

million, respectively.

10. Derivative Transactions

(1) Derivative transactions to which hedge accounting is applied

The analysis of contract amounts of derivative transactions by due dates is as follows:

As of March 31, 2021

	Millions of yen							
	Contract amount	Due within one year	Due after one year through two years	Due after two years through three years	Due after three years through four years	Due after four years through five years	Due after five years	
Cash flow hedges								
Foreign exchange risk:								
Foreign exchange forward contracts	¥11,823	¥11,823	¥ —	¥ —	¥ —	¥ —	¥ —	¥ —
Interest rate risk:								
Interest rate swaps	12,842	—	—	—	12,842	—	—	—
Others	481	481	—	—	—	—	—	—
Hedge of net investments in foreign operations								
Foreign exchange risk:								
Foreign currency-denominated borrowings	81,125	—	—	—	—	—	—	81,125

As of March 31, 2022

	Millions of yen							
	Contract amount	Due within one year	Due after one year through two years	Due after two years through three years	Due after three years through four years	Due after four years through five years	Due after five years	
Cash flow hedges								
Foreign exchange risk:								
Foreign exchange forward contracts	¥11,132	¥10,006	¥ 1,126	¥ —	¥ —	¥ —	¥ —	¥ —
Interest rate risk:								
Interest rate swaps	51,648	—	636	14,833	636	636	34,907	
Others	1,705	1,705	—	—	—	—	—	—
Hedge of net investments in foreign operations								
Foreign exchange risk:								
Foreign currency-denominated borrowings	85,437	—	—	—	—	—	—	85,437

The principal rates on forward exchange contracts and currency swap transactions and the principal rates on payments under interest rate swaps are as follows:

	Millions of yen	
	As of March 31, 2021	As of March 31, 2022
Cash flow hedges		
Foreign exchange risk:		
Foreign exchange forward contracts		
U.S. dollars	¥102.98-110.93	¥110.25-120.56
Euros	¥116.72-129.15	¥129.29-136.36
Interest rate risk		
Interest rate swaps		
Pay fixed rate, receive floating rate	1.32%	0.94%-2.01%

Amounts for derivatives designated as hedges are as follows:

As of March 31, 2021

	Contract amount	Carrying amount		Items in Consolidated Statement of Financial Position	Millions of yen
		Assets	Liabilities		Change in fair value of hedged item used as the basis for recognizing hedge ineffectiveness
Cash flow hedges					
Foreign exchange risk:					
Foreign exchange forward contracts	¥11,823	¥ 91	¥ 100	Other financial assets Other financial liabilities	¥ (82)
Currency swaps	—	—	—	Other financial liabilities	121
Interest rate risk:					
Interest rate swaps	12,842	—	30	Other financial liabilities	39
Others	481	232	—	Other financial assets	232
Hedge of net investments in foreign operations					
Foreign exchange risk:					
Foreign currency-denominated borrowings	81,125	—	81,125	Bonds and borrowings	(6,407)

As of March 31, 2022

	Contract amount	Carrying amount		Items in Consolidated Statement of Financial Position	Millions of yen
		Assets	Liabilities		Change in fair value of hedged item used as the basis for recognizing hedge ineffectiveness
Cash flow hedges					
Foreign exchange risk:					
Foreign exchange forward contracts	¥11,132	¥ 121	¥ 81	Other financial assets Other financial liabilities	¥ 49
Interest rate risk:					
Interest rate swaps	51,648	2,598	—	Other financial liabilities	2,628
Others	1,705	630	—	Other financial assets	398
Hedge of net investments in foreign operations					
Foreign exchange risk:					
Foreign currency-denominated borrowings	85,437	—	85,437	Bonds and borrowings	(4,312)

Amounts for items designated as hedges are as follows:

	As of March 31, 2021			As of March 31, 2022		
	Change in fair value of hedged item used as the basis for recognizing hedge ineffectiveness	Cash flow hedge reserve	Foreign currency translation surplus	Change in fair value of hedged item used as the basis for recognizing hedge ineffectiveness	Cash flow hedge reserve	Foreign currency translation surplus
Cash flow hedges						
Foreign exchange risk:						
Planned to purchase	¥ 82	¥ 50	¥ —	¥ (49)	¥ 68	¥ —
Foreign currency-denominated debt and interest	(121)	—	—	—	—	—
Interest rate risk:						
Interest on borrowings	(39)	18	—	(2,628)	2,095	—
Others	(232)	100	—	(398)	233	—
Hedge of net investments in foreign operations						
Foreign exchange risk:						
Exchange rate fluctuations in net investments	6,407	—	(2,767)	4,312	—	(4,949)

Details of cash flow hedges and hedges of net investments in foreign operations are as follows:

Fiscal year ended March 31, 2021

	Millions of yen				
	Changes in fair value of hedges recognized in other comprehensive income	Ineffective portions of hedges recognized in profit or loss	Consolidated Statement of Income items in which ineffective portions of hedges are included in profit or loss	Reclassification adjustments from cash flow hedge reserve to profit or loss	Consolidated Statement of Income items including profit from reclassification adjustments
Cash flow hedges					
Foreign exchange risk:					
Foreign exchange forward contracts	¥ 83	¥ —	¥ —	¥ (5)	Financial income
Currency swaps	(37)	—	—	(29)	Financial income
Interest rate risk:					
Interest rate swaps	(25)	—	—	1	Financial expenses
Others	159	—	—	(243)	Financial expenses
Hedge of net investments in foreign operations					
Foreign exchange risk:					
Foreign currency-denominated borrowings	(6,407)	—	—	—	—

Fiscal year ended March 31, 2022

	Millions of yen				
	Changes in fair value of hedges recognized in other comprehensive income	Ineffective portions of hedges recognized in profit or loss	Consolidated Statement of Income items in which ineffective portions of hedges are included in profit or loss	Reclassification adjustments from cash flow hedge reserve to profit or loss	Consolidated Statement of Income items including profit from reclassification adjustments
Cash flow hedges					
Foreign exchange risk:					
Foreign exchange forward contracts	¥ 32	¥ —	¥ —	¥ (58)	Financial income
Interest rate risk:					
Interest rate swaps	2,077	—	—	421	Financial expenses
Others	275	—	—	(128)	Financial expenses
Hedge of net investments in foreign operations					
Foreign exchange risk:					
Foreign currency-denominated borrowings	(4,312)	—	—	—	—

(2) Derivative transactions to which hedge accounting is not applied
Amounts relating to items not designated as hedges are as follows:

Millions of yen

	As of March 31, 2021			As of March 31, 2022		
	Contract amount	Over one year	Fair value	Contract amount	Over one year	Fair value
Foreign exchange forward contracts	¥ 4,377	¥ —	¥ (18)	¥ 9,360	¥ —	¥63
Currency swaps	366	295	22	285	273	24
Interest rate swaps	1,274	991	(48)	1,015	1,015	0
Total	¥ 6,017	¥1,286	¥ (44)	¥10,660	¥1,288	¥87

Note 36

Subsidiaries

Subsidiaries with significant non-controlling interests in fiscal years ended March 31, 2021 and 2022, were as follows:

Name of subsidiary	Location	Percentage of non-controlling interest	
		As of March 31, 2021	As of March 31, 2022
NIPPON SANSO HOLDINGS CORPORATION	Japan, others	49.4%	49.4%

Net income attributable to non-controlling interests of relevant subsidiaries and dividends paid to non-controlling interests are as follows:

Millions of yen

	Fiscal year ended March 31, 2021	Fiscal year ended March 31, 2022
Net income (loss) attributable to non-controlling interests	¥28,073	¥33,225
Dividends paid to non-controlling interests	6,514	8,001

Cumulative non-controlling interests of relevant subsidiaries are as follows:

Millions of yen

	As of March 31, 2021	As of March 31, 2022
Cumulative non-controlling interests amounts	¥271,962	¥326,898

Summary financial information of Nippon Sanso Holdings Corporation is as follows. Summary financial information below is calculated based on the amounts before elimination in consolidation, adjusting goodwill and other items recognized at the time of a business combination.

Summary Consolidated Statements of Financial Position

Millions of yen

	As of March 31, 2021	As of March 31, 2022
Current assets	¥ 368,901	¥ 422,493
Non-current assets	1,544,556	1,623,637
Total	¥1,913,457	¥2,046,130
Current liabilities	326,019	331,595
Non-current liabilities	983,369	1,000,538
Total	¥1,309,388	¥1,332,133
Equity	604,069	713,997
Total	¥1,913,457	¥2,046,130

Summary Consolidated Statements of Income and Consolidated Statements of Comprehensive Income

	Millions of yen	
	As of March 31, 2021	As of March 31, 2022
Sales revenue	¥818,238	¥957,169
Net income	55,172	64,951
Total comprehensive income	116,227	124,628

Summary Consolidated Statements of Cash Flows

	Millions of yen	
	As of March 31, 2021	As of March 31, 2022
Cash flows from operating activities	¥149,232	¥148,760
Cash flows from investing activities	(59,686)	(70,858)
Cash flows from financing activities	(103,159)	(77,946)
Effect of exchange rate changes on cash and cash equivalents	4,543	2,416
Net increase (decrease) in cash and cash equivalents	¥ (9,070)	¥ 2,371

Note 37

Related Parties

1. Related Party Transactions

Transactions with major related parties are as follows. For sales of goods and services, the principal transactions are product sales, while the main transactions for goods purchases are purchases of raw materials. The terms for transactions with related parties are similar to those of independent third-party transactions.

	Millions of yen			
	Fiscal year ended March 31, 2021		Fiscal year ended March 31, 2022	
	Joint venture	Associates	Joint venture	Associates
Sales of goods and services	¥62,242	¥26,765	¥82,811	¥29,505
Purchases of goods and services	18,988	41,081	20,125	53,584

Receivables and obligations to major related parties as a result of the above transactions are as follows:

	Millions of yen			
	As of March 31, 2021		As of March 31, 2022	
	Joint venture	Associates	Joint venture	Associates
Receivables				
Accounts receivable	¥16,991	¥7,214	¥17,470	¥7,964
Others	432	1,415	542	1,333
Total	¥17,423	¥8,629	¥18,012	¥9,297
Obligations				
Accounts payable	¥ 2,893	¥4,958	¥ 3,970	¥6,050
Others	70	80	82	43
Total	¥ 2,963	¥5,038	¥ 4,052	¥6,093

2. Remuneration for key Group executives

Remuneration for key Group executives is as follows:

	Millions of yen	
	Fiscal year ended March 31, 2021	Fiscal Year ended March 31, 2022
Remuneration and bonuses	¥1,700	¥2,005
Share-based compensation	107	477
Total	¥1,807	¥2,482

Note 38

Commitments Commitments relating to acquisitions of property, plant and equipment and intangible assets are as follows:

	Millions of yen	
	As of March 31, 2021	As of March 31, 2022
Acquisitions of property, plant and equipment and intangible assets	¥182,294	¥183,879

Note 39

Contingent Liabilities

Guarantee Obligations

Guarantees and similar undertakings for borrowings from joint ventures, associates and financial institutions of general business partners are as follows.

	Millions of yen	
	As of March 31, 2021	As of March 31, 2022
Joint ventures	¥3,896	¥2,994
Associates	228	181
General business partners	179	78
Others	1,070	966
Total	¥5,373	¥4,219

English Translation
Independent Auditor's Report

June 24, 2022

The Board of Directors
Mitsubishi Chemical Holdings Corporation

Ernst & Young ShinNihon LLC
Tokyo, Japan

Kazuomi Nakamura
Designated Engagement Partner
Certified Public Accountant

Takayuki Ueki
Designated Engagement Partner
Certified Public Accountant

Kosuke Kawabata
Designated Engagement Partner
Certified Public Accountant

Makoto Okabe
Designated Engagement Partner
Certified Public Accountant

Opinion

We have audited the accompanying consolidated financial statements of Mitsubishi Chemical Holdings Corporation and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at March 31, 2022, and the consolidated statements of income, 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 with impairment test	
Description of key audit matter	Auditor's response
<p>As of March 31, 2022, goodwill is valued at ¥705,412 million (12.7% of total assets) in the Consolidated Statement of Financial Position. As described in note 13 to the consolidated financial statements, the breakdown of goodwill by cash generating units or group of cash generating units is as follows: Industrial gases business in the amount of ¥501,170 million, Ethical pharmaceuticals business in the amount of ¥59,939 million, MMA business in the amount of ¥38,336 million, and others in the amount of ¥105,967 million.</p> <p>In the impairment tests, the recoverable amount of a group of cash generating units including goodwill is measured based on value in use. The value in use is measured using discounted cash flow projections. The cash flow projections are based on the business plan for up to five years approved by management. For the subsequent periods, the Company estimates the cash flow projections and long-term growth rates considering future uncertainty.</p> <p>The significant assumptions in estimating the value in use are the cash flow projections based on the business plan for up to five years, discount rates and long-term growth rates for subsequent periods. The business plan is affected primarily by the sales revenue forecasts and the market growth rates.</p> <p>The calculation process of the value in use used in goodwill impairment tests is complex and the assumptions for future cash flows and long-term growth rates over five years depend on the market trends in each industry and have uncertainty due to projections over a long period.</p> <p>Estimates of future cash flows, discount rates, and long-term growth rates over five years significantly depend on the assessments and judgment of management, and therefore we determined it to be a key audit matter.</p>	<p>We assessed the valuation methodologies used in the calculation of the value in use by involving valuation specialists of our network firm. We performed the following procedures for cash flow projections, discount rates, and long-term growth rates over five years, which are significant assumptions in the calculation of the value in use, among others:</p> <ul style="list-style-type: none"> ■ Cash flow projections <ul style="list-style-type: none"> - In order to ensure that the cash flow projections used in the impairment tests are based on the business plan for up to five years approved by management, we assessed consistency of the business plan with the budget for the next year and the business plan approved by management. - In order to evaluate the degree of accuracy of the estimation process for the future business plan, we compared the budgets and business plans in the prior years with actual results. - We assessed the key inputs included in the estimation for the business plan such as the sales revenue forecasts and the market growth rates by discussing with management, comparing the relevant assumptions with market forecasts, external data such as forecasts of similar companies, and analyzing trends using actual results in order to evaluate the reasonableness of such inputs. ■ Discount rates <ul style="list-style-type: none"> - In order to evaluate the reasonableness of the calculation results, we assessed the consistency between the input information used in the calculation and available external information by involving the valuation specialists of our network firm. ■ Long-term growth rates over five years and responses to estimation uncertainty <ul style="list-style-type: none"> - In order to ensure that future uncertainty are considered and reflected by management, we evaluated management's assessment of estimation uncertainty related to long-term market growth rates.

	- If there was insufficient headroom in the group of cash generating units, we assessed whether the value in use was not less than the carrying value, while considering additional risks.
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Valuation of intangible assets with indefinite useful lives related to pharmaceutical products (In-process research and development expenses and rights acquired through an in-licensing agreement with Regeneron Pharmaceuticals, Inc. recognized in the acquisition of NeuroDerm Ltd.)

Description of key audit matter	Auditor's response
<p>As of March 31, 2022, intangible assets with indefinite useful lives are valued at ¥66,695 million (1.2% of total assets) in the Consolidated Statement of Financial Position and the related disclosure of intangible assets with indefinite useful lives is made in note 13 to the consolidated financial statements. Of the intangible assets with indefinite useful lives, the in-process research and development expenses recognized by the acquisition of NeuroDerm Ltd. (“NeuroDerm”) and the rights acquired through an in-licensing agreement with Regeneron Pharmaceuticals, Inc. (“Regeneron”) are the key audit matter.</p> <p>As described in note 15 to the consolidated financial statements, in the current fiscal year, the business plan was revised due to changes in the business environment regarding the exclusive development and sales rights in Japan and Asia (excluding Korea and China) for the treatment of osteoarthritis, which is the right acquired under the in-licensing agreement with Regeneron. As a result, the recoverable amount was lower than the carrying amount, and therefore the carrying amount was reduced to the recoverable amount of ¥923 million, and an impairment loss on the intangible assets of ¥15,797 million was recorded.</p> <p>As of the end of the current fiscal year intangible assets with indefinite useful lives mostly consist of in-process research and development expenses for the treatment for Parkinson's disease recognized when Mitsubishi Tanabe Pharma Corporation, a consolidated subsidiary of the Company, acquired NeuroDerm in October 2017 and corresponding carrying amount is ¥50,058 million (0.9% of total assets). In-process research and development expenses were recorded an impairment loss in the previous fiscal year. No indications of impairment were identified in the current interim periods and, also no impairment loss was recognized as a result of annual impairment tests.</p> <p>In-process research and development expenses and rights acquired through the in-licensing agreement are</p>	<p>We performed the following procedures to assess valuation of the intangible assets, among others:</p> <ul style="list-style-type: none"> ■ Valuation methodologies <ul style="list-style-type: none"> - With the involvement of the valuation specialists of our network firm, we assessed the valuation methodologies used in the calculation of the value in use. ■ Probability of obtaining marketing approval by regulators <ul style="list-style-type: none"> - We discussed the future forecasts considering product development progress and success probabilities with the management and department managers. In addition, we considered and evaluated past data related to success probabilities at each stage of research and development in the pharmaceutical industry. ■ Sales revenue forecasts after launch <ul style="list-style-type: none"> - In order to evaluate the reasonableness of the key inputs in the cash flow projections, we understood the calculation logic and assumptions regarding projected sales prices and volumes, and market share of the products to evaluate the projected revenues after launch of products. We examined changes from the projections in the previous year in the light of the business environment. We compared the relevant assumptions with market forecasts from external institutions and assessed the basis of the estimation. Especially, for the forecast of sales volume, we obtained, reviewed, and compared the results of the market research conducted by an external organization and the data analyzed by Regeneron, which is the joint research partner. We also discussed with management and reviewed management presentation materials to the Board of Directors. ■ Discount rates <ul style="list-style-type: none"> - In order to evaluate the reasonableness of the calculation results, we assessed the consistency between the input information used in the calculation

at the research and development stage, have yet to obtain marketing approval from regulatory authorities, and are not available for use, the period during which the future economic benefits embodied in the assets are consumed is currently unforeseeable and therefore, the assets are classified as intangible assets with indefinite useful lives. The Company does not amortize intangible assets with indefinite useful lives and conducts impairment tests annually and whenever there are indications of impairment.

In the impairment tests, the recoverable amount of the intangible assets is measured based on value in use. The value in use is measured using discounted cash flow projections, and the significant assumptions are the probability of obtaining marketing approval from regulatory authorities, sales revenue forecasts after launch of products and discount rates.

Prospects for product pipelines in development stages in the pharmaceutical industry are highly uncertain. Furthermore, the assumptions such as the probability of obtaining marketing approval by regulators, sales revenue forecasts after launch, and discount rates are numerous and highly complex and have significant impact on the calculation of value in use. Given that the significant assumptions depend on the assessments and judgment of management and affect the value in use calculation and the judgment of whether impairment loss recognition is necessary, and therefore we determined it to be a key audit matter.

and available external information with involvement of the valuation specialists of our network firm.

- Responses to estimation uncertainty
- We identified the risk factors considered for probability of obtaining marketing approval by regulators and the sales revenue forecasts after launch through discussions with management and department managers, and we examined the evaluation of uncertainty by management.
- With regard to the in-process research and development expenses recognized in the acquisition of NeuroDerm, we assessed that the value in use was not less than the carrying amount, while considering additional risks by raising the discount rate to a certain amount.

Accounting treatment related to the transfer of polycrystalline alumina fiber business

Description of key audit matter	Auditor's response
<p>As stated in note 9 of the consolidated financial statements, a gain of ¥60,838 million on business transfer and ¥3,221 million of transfer related expenses were recorded in the Consolidated Statement of Income for the fiscal year ended March 31, 2022.</p> <p>As part of the portfolio reform focusing on the Company's market growth, competitiveness, and sustainability, the polycrystalline alumina fiber business of Mitsubishi Chemical Corporation (MCC) and Mitsubishi Chemical High-Technica Corporation (MCHT), which are consolidated subsidiaries, was transferred in March 2022. Polycrystalline alumina fiber is a product mainly used as a support material for protecting a ceramic catalyst carriers from vibration and impact during travel in a catalytic converters for purifying automobile exhaust gas, and as a heat insulating material in a steel mill furnaces. MCC manufactured and sold the product and MCHT mainly</p>	<p>We performed the following procedures to assess the transfer of the polycrystalline alumina fiber business, among others:</p> <ul style="list-style-type: none"> ■ Understanding the economic rationality of business transfer transactions - We reviewed the agenda materials of meeting of the board of directors to understand the economic rationality and business strategy of the Company in the series of transactions accompanying the business transfer. - We asked the management and the project manager questions to understand the details and background of the transfer - We reviewed the share transfer agreement between the Company and White Japan Acquisition Co., Ltd. to understand the details of the transfer consideration, transfer cost, and related costs.

engages in the manufacture of the product on consignment from MCC and, as a whole, both are engaged in the polycrystalline alumina fiber business.

In the transfer transaction, the assets and liabilities of MCC and MCHT regarding the polycrystalline alumina fiber business will be succeeded to the newly established Mufftech Co., Ltd. (MAF) and Mufftech Joetsu Co., Ltd. (MAFJ) through an absorption-type split. The transaction was then ultimately completed by transferring all shares of MAF and MAFJ to White Japan Acquisition Co., Ltd. a special purpose company owned by a fund to whom an affiliate of Apollo Global Management Inc. provides investment advices.

The quantitative amount of the transfer consideration is significant, and part of a consideration includes the fair value of the conditional consideration. The conditional consideration is linked to the achievement of certain financial targets after the acquisition and the fair value of the conditional consideration is calculated based on multiple input information based on a computational model using the Black-Scholes model. Measuring the fair value of the conditional consideration is complex and affects the calculation results depending on management's assessment and judgment.

The assets and liabilities subject to the transfer were held by multiple consolidated subsidiaries together with assets and liabilities other than the polycrystalline alumina fiber business with a carve-out process to classify and aggregate assets and liabilities to be transferred. In addition, several costs are incurred related to the business transfer, such as special retirement expenses and loss on retirement of fixed assets.

The business transfer is highly complex in that a series of transactions were carried out such as establishment of multiple new companies, absorption-type split, and sale of shares. Furthermore, gain on the business transfer accounts for 21.0% of profit before tax for the current fiscal year, which is of highly materially significant, therefore, we determined the accounting treatment related to the transfer of polycrystalline alumina fiber business to be a key audit matter.

■ Transfer consideration

- We obtained the deposit voucher to verify the effectiveness of the share transfer.
- With the involvement of the valuation specialists of our network firm, we assessed valuation methodologies used in the calculation of the fair value of the conditional consideration.
- We reviewed the agreement with the transfer price in the share transfer agreement to verify that the business value at the time of business transfer, which is significant input information that affects the evaluation of the conditional consideration, is consistent with the calculation basis of the share transfer consideration.

■ Transfer costs and related costs

- We obtained the review material prepared by the Company to understand the carve-out process for derecognition of assets and liabilities subject to the transfer.
- We compared the assets and liabilities to be transferred with the content of the stock transfer agreement to verify that the transfer cost is calculated accurately and comprehensively.
- Regarding the accuracy and completeness of business transfer-related costs, we reviewed the stock transfer agreement and made comparisons with related vouchers such as price quotations and withdrawal vouchers.

■ Recognition and measurement of gain of business transfer

- In order to verify that a series of transactions associated with the business transfer have been completed and the requirements for recognizing gain on the business transfer from the transfer transaction have been satisfied, we examined the requirements for establishing the share transfer. Also, we examined the consistency of timing regarding the recognition of gains on the business transfer and the derecognition of assets and liabilities subject to transfer.
- We examined the accuracy of gain on the business transfer calculated as the difference between the transfer consideration and the transfer costs to assess the measurement of gain on the business transfer.

Other Information

The other information comprises the information included in the annual report (Yukashoken Hokokusho) that contains audited consolidated financial statements but does not include the consolidated financial statements and our audit report thereon. Management is responsible for preparation and disclosure of the other information. The Audit Committee is responsible for overseeing the Group's reporting process of the other information.

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

Responsibilities of Management, the Audit Committee 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 Audit Committee is 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 Audit Committee 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 Audit Committee 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 Audit Committee, 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.

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