# **Financial Report**

Nippon Shokubai Co., Ltd.

Year ended March 31, 2023 (For Translation Purposes Only)

This document has been extracted and translated from the "Consolidated Financial Statements" in the "Financial Information" section in the original Japanese report (Yukashoken-Hokokusho) issued on June 21, 2023 for reference purposes only. In the event of any discrepancy between this translated document and the Japanese version, the Japanese version shall prevail.

# Nippon Shokubai Co., Ltd.

# Financial Report

Year ended March 31, 2023

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# **Financial Report**

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# Consolidated Statement of Financial Position

	March 31, 2022	March 31, 2023
	(Million	as of yen)
Assets		
Current assets:		
Cash and cash equivalents (Note 6)	¥ 39,363	¥ 39,035
Trade receivables (Notes 7 and 29)	103,577	98,571
Inventories (Note 8)	75,311	86,056
Other financial assets (Notes 9 and 29)	12,427	14,151
Other current assets	6,979	6,239
Total current assets	237,656	244,053

Non-current assets:		
Property, plant and equipment		
(Notes 10, 12 and 30)	191,143	189,520
Intangible assets (Notes 11 and 12)	7,895	8,358
Investments in affiliates and joint ventures		
accounted for using equity method		
(Note 13)	22,868	27,088
Other financial assets (Notes 9 and 29)	40,981	40,195
Net defined benefit asset (Note 19)	12,820	9,129
Deferred tax assets (Note 14)	3,320	3,404
Other non-current assets	1,468	1,573
Total non-current assets	280,495	279,266
Total assets	¥ 518,151	¥ 523,319

	March 31, 2022	March 31, 2023
	(Million	s of yen)
Liabilities and equity		
Liabilities		
Current liabilities:		
Trade payables (Notes 15 and 29)	¥ 57,616	¥ 53,138
Borrowings (Notes 16, 17 and 29)	23,559	23,044
Other financial liabilities		
(Notes 16, 17, 29 and 30)	10,570	9,539
Income taxes payable	5,812	3,970
Provisions (Note 18)	5,931	6,672
Other current liabilities	5,527	5,278
Total current liabilities	109,014	101,641
Non-current liabilities:		
Borrowings (Notes 16, 17 and 29)	28,634	27,867
Other financial liabilities		
(Notes 16, 17, 29 and 30)	6,784	5,961
Net defined benefit liability (Note 19)	14,044	8,941
Provisions (Note 18)	2,347	2,582
Deferred tax liabilities (Note 14)	6,205	6,330
Total non-current liabilities	58,014	51,681
Total liabilities	167,028	153,321
Equity:		
Share capital (Note 20)	25,038	25,038
Capital surplus (Note 20)	22,472	22,520
Treasury shares (Note 20)	(6,291)	(9,298)
Retained earnings (Note 20)	288,124	301,940
Other components of equity (Note 20)	14,538	22,030
Total equity attributable to owners of parent	343,882	362,231
Non-controlling interests	7,241	7,767
Total equity	351,123	369,998
Total liabilities and equity	¥ 518,151	¥ 523,319

# Consolidated Statement of Income

	Years ended March 31,		
-	2022	2023	
-	(Million	is of yen)	
Revenue (Notes 5 and 22)	¥ 369,293	¥ 419,568	
Cost of sales	291,586	339,176	
Gross profit (loss)	77,707	80,392	
Selling, general and administrative expenses			
(Note 23)	48,992	56,844	
Other operating income (Note 24)	3,013	3,057	
Other operating expenses (Notes 12 and 24)	2,667	3,076	
Operating profit (loss)	29,062	23,528	
Finance income (Note 25)	1,932	1,856	
Finance expenses (Note 25)	682	1,134	
Share of profit (loss) of investments			
accounted for using equity method (Note	3,362	1,925	
13)			
Profit (loss) before income tax	33,675	26,175 6.015	
Income tax expense (refund) (Note 14)	9,204 V 24,470	6,015	
Profit (loss)	¥ 24,470	¥ 20,160	
Profit (loss) attributable to:			
Owners of parent	23,720	19,392	
Non-controlling interests	750	769	
Profit (loss)	¥ 24,470	¥ 20,160	
Earnings (loss) per share: Basic earnings (loss) per share (Yen)			
(Note 27) Diluted earnings (loss) per share (Yen)	594.86	488.29	
(Note 27)	_	488.22	

# Consolidated Statement of Comprehensive Income

	Years ended March 31,		
_	2022	2023	
_	(Million	s of yen)	
Profit (loss)	¥ 24,470	¥ 20,160	
Other comprehensive income (loss)			
Items that will not be reclassified to profit			
or loss:			
Net changes in financial assets measured			
at fair value through other comprehensive			
income (loss) (Note 26)	(2,160)	(199)	
Remeasurements of defined benefit plans		,	
(Notes 19 and 26)	1,054	1,604	
Share of other comprehensive income	,	,	
(loss) of affiliates and joint ventures			
accounted for using equity method			
(Notes 13 and 26)	(38)	154	
Subtotal of items that will not be	· · · · · · · · · · · · · · · · · · ·		
reclassified to profit or loss	(1,144)	1,559	
Items that may be reclassified to profit or	( ) /	,	
loss:			
Exchange differences on translation of			
foreign operations (Note 26)	9,041	6,888	
Share of other comprehensive income	- 7-	- )	
(loss) of affiliates and joint ventures			
accounted for using equity method			
(Notes 13 and 26)	416	1,402	
Subtotal of items that may be reclassified	_		
to profit or loss	9,457	8,290	
Total other comprehensive income (loss)	8,312	9,848	
- · · · · · · · · · · · · · · · · · · ·	¥ 32,782	¥ 30,009	
Comprehensive income (loss)	1 32,702	1 00,000	
Comprehensive income (loss) attributable to:	21 407	20 000	
Owners of parent	31,497	28,889	
Non-controlling interests	1,285	1,120	
Comprehensive income (loss)	¥ 32,782	¥ 30,009	

# Nippon Shokubai Co., Ltd. and Consolidated Subsidiaries Consolidated Statement of Changes in Equity

# FY2021 (April 1, 2021 to March 31, 2022)

					Other compo	nents of equity
	Share capital	Capital surplus	Treasury shares	Retained earnings	Net changes in financial assets measured at fair value through other comprehensive income (loss)	Remeasurements of defined benefit plans
				(Millions of year	ı)	
Balance as of April 1, 2021	¥ 25,038	¥ 22,472	¥ (6,286)	¥ 267,729	¥ 7,691	¥ –
Profit (loss)	_	_	_	23,720	-	-
Other comprehensive income (loss) (Note 26)	-	_	_	-	(2,157)	999
Comprehensive income (loss):				23,720	(2,157)	999
Acquisition of treasury					, ,	
shares (Note 20)	_	_	(5)	_	_	_
Share-based payment	_	_	_	_	_	_
transactions						
Cash dividends (Note 21)	_	_	_	(4,984)	_	_
Increase (decrease) in non-						
controlling interests	_	_	_	_	_	_
Transfer from other						
components of equity to						
retained earnings				1,659	(660)	(999)
Total transactions with owners			(5)	(3,325)	(660)	(999)
Balance as of March 31, 2022	¥ 25,038	¥ 22,472	¥ (6,291)	¥ 288,124	¥ 4,874	¥ –

	equity				
	Exchange differences				
	on translation of foreign operations	Total	Total equity attributable to owners of parent	Non- controlling interests	Total equity
			(Millions of yen	n)	
Balance as of April 1, 2021	¥ 730	¥ 8,420	¥ 317,373	¥ 6,352	¥ 323,725
Profit (loss)	_	_	23,720	750	24,470
Other comprehensive income (loss) (Note 26)	8,935	7,777	7,777	535	8,312
Comprehensive income (loss):	8,935	7,777	31,497	1,285	32,782
Acquisition of treasury					
shares (Note 20)	_	_	(5)	_	(5)
Share-based payment transactions	-	_	_	_	_
Cash dividends (Note 21)	_	_	(4,984)	(396)	(5,380)
Increase (decrease) in non- controlling interests	_	_	_	_	_
Transfer from other components of equity to		(4. 5-0)			
retained earnings		(1,659)			
Total transactions with owners		(1,659)	(4,989)	(396)	(5,385)
Balance as of March 31, 2022	¥ 9,664	¥14,538	¥ 343,882	¥ 7,241	¥ 351,123

Other components of

# Nippon Shokubai Co., Ltd. and Consolidated Subsidiaries Consolidated Statement of Changes in Equity (continued)

# FY2022 (April 1, 2022 to March 31, 2023)

					Other components of equity		
	Share capital	Capital surplus	Treasury shares	Retained earnings	Net changes in financial assets measured at fair value through other comprehensive income (loss)	Remeasurements of defined benefit plans	
				(Millions of yen	1)		
Balance as of April 1, 2022	¥ 25,038	¥ 22,472	¥ (6,291)	¥ 288,124	¥ 4,874	¥ -	
Profit (loss)	_	_	_	19,392	_	_	
Other comprehensive income							
(loss) (Note 26)	_	_	_	_	(201)	1,664	
Comprehensive income (loss):				19,392	(201)	1,664	
Acquisition of treasury					, ,		
shares (Note 20)	_	_	(3,007)	_	_	_	
Share-based payment			( ) ,				
transactions	_	41	_	_	_	_	
Cash dividends (Note 21)	_	_	_	(7,581)	_	_	
Increase (decrease) in non-				(7,001)			
controlling interests	_	8	_	_	_	_	
Transfer from other		Ü					
components of equity to							
retained earnings	_	_	_	2,005	(342)	(1,664)	
Total transactions with owners		49	(3,007)	(5,575)	(342)	(1,664)	
	¥ 25,038	¥ 22,520	¥ (9,298)	¥ 301,940	¥ 4,331	¥ -	
Balance as of March 31, 2023	£ 43,030	# 44,340	¥ (3,430)	+ 301,340	¥ 4,331	# -	

	Other components of equity				
	Exchange differences on translation of foreign operations	Total	Total equity attributable to owners of parent	Non- controlling interests	Total equity
			(Millions of yen	,	
Balance as of April 1, 2022	¥ 9,664	¥14,538	¥ 343,882	¥ 7,241	¥ 351,123
Profit (loss)	_	_	19,392	769	20,160
Other comprehensive income (loss) (Note 26)	8,035	9,497	9,497	351	9,848
Comprehensive income (loss):	8,035	9,497	28,889	1,120	30,009
Acquisition of treasury shares (Note 20) Share-based payment	_	-	(3,007)	-	(3,007)
transactions	_	_	41	_	41
Cash dividends (Note 21)	_	_	(7,581)	(571)	(8,152)
Increase (decrease) in non- controlling interests Transfer from other	_	-	8	(24)	(16)
components of equity to					
retained earnings	_	(2,005)	_	_	_
Total transactions with owners		(2,005)	(10,539)	(595)	(11,134)
Balance as of March 31, 2023	¥17,699	¥22,030	¥ 362,231	¥ 7,767	¥ 369,998

# Consolidated Statement of Cash Flows

	Years ended March 31,	
<del>-</del>	2022	2023
-	(Millions	of yen)
Cash flows from operating activities:	,	
Profit (loss) before income tax	¥ 33,675	¥ 26,175
Depreciation and amortization	28,875	29,312
(Gain) loss on sale of property, plant and equipment	(502)	(22)
Impairment losses (Note 12)	575	1,554
(Increase) decrease in net defined benefit asset	(46)	4,845
Increase (decrease) in net defined benefit liability	(11)	(4,137)
Interest and dividend income	(1,483)	(1,837)
Interest expenses	338	558
Share of (profit) loss of affiliates and joint ventures		
accounted for using equity method	(3,362)	(1,925)
(Increase) decrease in trade receivables	(19,005)	7,371
(Increase) decrease in inventories	(15,750)	(8,926)
Increase (decrease) in trade payables	10,231	(5,923)
Other _	1,314	(637)
Subtotal	34,848	46,407
Interest and dividends received	2,775	5,401
Interest paid	(340)	(454)
Income taxes paid	(2,225)	(9,907)
Net cash flows provided by operating activities	35,058	41,447
Cash flows from investing activities:		
Purchase of property, plant and equipment	(20,189)	(21,652)
Proceeds from sale of property, plant and equipment	730	331
Purchase of intangible assets	(2,067)	(1,433)
Purchase of investments	(895)	(383)
Proceeds from sale and redemption of investments	1,727	821
Acquisition of shares of subsidiaries and affiliates	(500)	_
Payments for investments in capital of subsidiaries and		
affiliates	-	(3,963)
Other	(1,963)	302
Net cash flows used in investing activities	(23,158)	(25,976)
Cash flows from financing activities:		
Net increase (decrease) in short-term borrowings		
(Note 17)	6,227	544
Proceeds from long-term borrowings (Note 17)	10,035	9,000
Repayments of long-term borrowings (Note 17)	(9,722)	(13,621)
Redemption of bonds(Note 17)	(10,000)	_
Payments of lease liabilities (Note 17)	(1,906)	(2,110)
Acquisition of treasury shares	(5)	(3,007)
Dividends paid (Note 21)	(4,984)	(7,581)
Dividends paid to non-controlling interests	(396)	(571)
Other	_	25
Net cash flows used in financing activities	(10,751)	(17,321)
Effect of exchange rate changes on cash and cash equivalents	1,872	1,522
Net increase (decrease) in cash and cash equivalents	3,022	(327)
·	36,341	39,363
Cash and cash equivalents at the beginning of the year (Note 6)		
Cash and cash equivalents at the end of the year (Note 6)	¥ 39,363	¥ 39,035

#### Notes to Consolidated Financial Statements

March 31, 2023

#### 1. Reporting Entity

Nippon Shokubai Co., Ltd. (the "Company") is a company incorporated in Japan.

The registered addresses of the Company's head office and main offices are disclosed on the Company's website (URL <a href="https://www.shokubai.co.jp/en/">https://www.shokubai.co.jp/en/</a>). The consolidated financial statements comprise the Company and its subsidiaries (the "Group") and its affiliates. The Group is engaged mainly in the manufacture and sale of the products related to the following businesses for Materials and Solutions. The details of each business are described in Note "5. Segment Information."

#### 2. Basis of Preparation

#### (1) Compliance with IFRS

The Group's consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") issued by the International Accounting Standards Board ("IASB"). As the Company meets the requirements of a "Specified Company applying Designated International Financial Reporting Standards" pursuant to Article 1-2 of the "Ordinance on Terminology, Forms and Preparation Methods of Consolidated Financial Statements" (Ordinance of the Ministry of Finance of Japan No. 28 of 1976), it has adopted the provision of Article 93 of said ordinance. The consolidated financial statements were approved on June 21, 2023 by President.

#### (2) Basis of measurement

The Group's consolidated financial statements have been prepared on a historical cost basis, except for certain financial instruments measured at fair value as described in Note "3. Significant Accounting Policies".

#### (3) Functional currency and presentation currency

The Group's consolidated financial statements are presented in Japanese yen, the Company's functional currency, and figures are rounded to the nearest million yen.

#### (4) New accounting standards and interpretations issued but not yet effective

There are no significant standards or interpretations that have been issued by the date of approval of the consolidated financial statements but have not been applied by the Group as of March 31, 2023.

#### 3. Significant Accounting Policies

#### (1) Basis of consolidation

#### 1) Subsidiaries

Subsidiaries are entities that are controlled by the Group.

The Group is deemed to control an entity when the Group is exposed or has rights to variable returns from its involvement in the entity and has the ability to affect those returns through its power over the entity.

The Group consolidates subsidiaries from the date on which it gains control until the date on which it loses control. If any accounting policies applied by a subsidiary differ from those applied by the Company, adjustments are made to financial statements of such consolidated subsidiaries where necessary. All intercompany balances, transactions and unrealized gains or losses arising from intragroup transactions are eliminated in preparation of consolidated financial statements.

Any additional acquisition of non-controlling interests after the acquisition of control is accounted for as an equity transaction. Any difference between the amount by which the non-controlling interests are adjusted and the fair value of consideration paid or received is directly recognized in capital surplus. Goodwill from such transactions is not recognized.

Any change in ownership interests in subsidiaries without a loss of control is accounted for as an equity transaction. Any difference between the amount by which the non-controlling interests are adjusted and the fair value of consideration is directly recognized in equity. When control is lost, gains or losses arising from the loss of control are recognized in profit or loss.

#### 2) Affiliates and joint ventures

Affiliates are entities over which the Group has significant influence in terms of their financial and operating policies but are not controlled by the Group. When the Group owns 20% or more but 50% or less of the voting power of another entity, the Group is deemed to have significant influence over such entity. When the Group determines that it has significant influence over another entity due to the dispatch of officers and significant transactions, even if it owns less than 20% of the voting rights, such entity shall be included in affiliates.

Joint ventures are entities that are jointly controlled by one or more parties, including the Group, in accordance with contractual agreements, and require unanimous consent of all parties in deciding policies for related activities.

#### (1) Basis of consolidation (continued)

#### 2) Affiliates and joint ventures (continued)

The Group recognizes the ownership interests in affiliates and joint ventures at acquisition cost and accounts for its investments using the equity method until the date on which it loses significant influence or joint control.

If accounting policies applied by an affiliate or a joint venture differ from those applied by the Company, adjustments are made to the financial statements of affiliate or joint venture where necessary.

Regarding some affiliates and joint ventures that cannot practically unify their fiscal year end with that of the Company due to relationships with other shareholders, etc., necessary adjustments are made for the effects of significant transactions that occur until the year end of the Company.

#### (2) Business combinations

The Group accounts for business combinations using the acquisition method. Consideration is measured as the net of the fair value of assets acquired and liabilities assumed in exchange for the control of an acquiree and equity instruments issued by the Company at the acquisition date. If the consideration exceeds the net of the fair value of identifiable assets acquired and liabilities assumed, the Group records it as goodwill in the consolidated statement of financial position. However, if the consideration is less than the net of the fair value of identifiable assets acquired and liabilities assumed, the Group immediately records it in income in the consolidated statement of income.

If the Group does not complete its initial accounting treatment by the end of the period in which the business combination occurs, it will account for the business combination using provisional amounts and revise the provisional amounts during the measurement period within one year from the acquisition date.

Acquisition-related costs incurred are accounted for as expenses.

In addition, any additional acquisition of non-controlling interests after the acquisition of control is accounted for as an equity transaction. Any difference between the amount by which the non-controlling interests are adjusted and the fair value of consideration paid or received is directly recognized in capital surplus. Goodwill from such transactions is not recognized.

#### (3) Foreign currency translation

#### 1) Foreign currency transactions

The Group measures items included in the financial statements of each group company using the currency used in the main economic environment where each group company conducts its operating activities (functional currency).

Foreign currency transactions are converted into the functional currency using the exchange rates at the date of the transactions. When remeasuring items included in the financial statements, the Group converts them into the functional currency using the exchange rates at the date of the remeasurement. Exchange differences arising from the settlement of these transactions or the translation of monetary assets or liabilities in a foreign currency using the exchange rates at the date of the settlement are recognized in profit or loss. However, translation differences arising from equity financial instruments measured at fair value through other comprehensive income (loss) or cash flow hedges are recognized in other comprehensive income (loss).

#### 2) Foreign operations

Regarding foreign operations using a functional currency that differs from the presentation currency, assets and liabilities (including goodwill arising from the acquisition and revision of fair value) are translated to Japanese yen using the exchange rates at the end of the reporting period, while income and expenses are translated to Japanese yen at the average rate during the period unless the exchange rates fluctuate significantly during that period.

Exchange differences arising from the translation of financial statements of a foreign operation are recognized in other comprehensive income (loss). When a foreign operation is disposed of, the cumulative translation differences related to the foregoing operation are recognized in profit or loss at the time of the disposal.

## (4) Cash and cash equivalents

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

- (5) Financial instruments
  - 1) Non-derivative financial assets
    - (i) Initial recognition and measurement and subsequent measurement

The Group initially recognizes trade receivables and other receivables on the date of occurrence. All other non-derivative financial assets are recognized at the transaction date, on which the Group becomes a party to the contract.

(a) Financial assets measured at amortized cost

Financial assets are classified as "financial assets measured at amortized cost" if they meet the following two conditions:

- The financial assets are held to collect contractual cash flow with an objective of business model of the Group.
- The contractual terms of the financial asset provide cash flows on specified dates that are solely payments of principal and interest on the principal amount outstanding.

Financial assets measured at amortized cost are initially recognized at fair value (including transaction cost directly attributable to the acquisition of such financial assets). These financial assets are subsequently measured at amortized cost using the effective interest method.

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

Financial assets that fail to meet either of the above two conditions are classified as "financial assets measured at fair value through profit or loss" or "financial assets measured at fair value through other comprehensive income (loss)". In addition, the Group has made an irrevocable decision and changes in fair value of equity financial instruments, such as shares held with the purpose to maintain and strengthen business relationships with investees, are recognized through other comprehensive income (loss) instead of profit or loss.

- (5) Financial instruments (continued)
  - 1) Non-derivative financial assets (continued)
    - (i) Initial recognition and measurement and subsequent measurement (continued)
      - (b) Financial assets measured at fair value through profit or loss or other comprehensive income (continued)

Debt instruments are classified as "financial assets measured at fair value through other comprehensive income (loss)" when the following two conditions are met.

- The debt instruments are held with a business model of the Group whose objective is to both collect contractual cash flows and sell such instruments.
- The contractual terms of the financial asset provide cash flows on predetermined dates that are solely payments of principal and interest on the principal amount outstanding.

These financial assets are initially recognized at fair value. The Group includes in fair value any transaction costs directly attributable to the acquisition of such financial assets, with the exception of financial assets measured at fair value through profit or loss.

Regarding equity financial instruments measured at fair value through other comprehensive income (loss), loss or gain attributable to changes in realized fair value is not reclassified to profit or loss. However, dividend income from such investments is recognized as "financial income" as a part of profit or loss, except in cases where it is clear that such dividends are the repayment of the investment principal.

#### (ii) Derecognition

When the rights to receive the cash flows from a financial asset expire or when a financial asset is transferred and substantially all of the risks and rewards of ownership of such financial asset are transferred, the Group derecognizes such financial asset.

- (5) Financial instruments (continued)
  - 1) Non-derivative financial assets (continued)
    - (iii) Impairment of financial assets

When recognizing the impairment of financial assets measured at amortized cost, the Group evaluates whether or not credit risk associated with such financial assets has increased significantly since the initial recognition at the end of each reporting period.

When credit risk has increased significantly, the Group measures provisions for such financial assets at an amount equivalent to lifetime expected credit losses. When credit risk has not increased significantly, the Group measures provisions for such financial assets at an amount equivalent to the 12-month expected credit losses. However, the Group always measures provisions for trade receivables at an amount equivalent to lifetime expected credit losses. Furthermore, the Group measures expected credit losses of financial instruments by considering the time value of the difference between contractual cash flows and the expected cash flows and recognizes it in profit or loss.

The Group determines whether or not credit risk associated with such financial assets has increased significantly since the initial recognition by determining based on changes in the risk of a default occurring. When determining such changes, the Group mainly considers past due information.

When measuring expected credit losses, the Group estimates in a way that reflects the following elements.

- (a) Unbiased and probability-weighted amount that is determined by evaluating a range of possible outcomes.
- (b) Time value of money.
- (c) Reasonable and supportable information that is available without undue cost or effort at the reporting date about past events, current conditions, and forecasts of future economic conditions.

#### (5) Financial instruments (continued)

#### 2) Non-derivative financial liabilities

#### (i) Initial recognition and measurement and subsequent measurement

Non-derivative financial liabilities are classified as financial liabilities measured at amortized cost and are recognized at the transaction date, on which the Group becomes a party to the contract.

The Group holds borrowings and trade payables as financial liabilities other than derivatives and initially recognizes them at fair value after deducting transaction costs. After initial recognition, these financial liabilities are measured at amortized cost using the effective interest method.

#### (ii) Derecognition

When financial liabilities expire, in other words, contractual obligations have been executed or discharged or cancelled or have expired, the Group derecognizes financial liabilities.

#### 3) Offsetting financial assets and liabilities

Financial assets and liabilities are offset and reported as net amounts in the consolidated statement of financial position, only when the Group currently holds legal and enforceable rights to set off the recognized amounts and intends to settle on a net basis or to realize the assets and settle the liabilities simultaneously.

#### 4) Derivatives and hedge accounting

The Group designates certain derivative instruments as cash flow hedges to hedge foreign exchange risk, interest rate risk, or other risks.

At the inception of a transaction, the Group documents the relationship between the hedging instrument and hedged item and the risk management objectives and strategies for undertaking various hedge transactions. At the inception of the hedge and on an ongoing basis, the Group also documents its assessment of whether derivatives used for hedge transactions can be highly effective in offsetting changes in cash flows of the hedged item. Furthermore, the Group verifies that such forecast transactions are highly probable to apply cash flow hedge accounting.

#### (5) Financial instruments (continued)

#### 4) Derivatives and hedge accounting (continued)

Changes in fair value of derivative instruments are recognized in profit or loss. The effective portion of changes in fair value of derivative instruments that are designated as cash flow hedges and meet the qualifying criteria is recognized in other components of equity. The ineffective portion is recognized in profit or loss.

Any amount incurred with respect to hedging instruments that is recognized in other components of equity is reclassified to profit or loss in the period when hedged items affect profit or loss. When hedged forecast transactions result in the recognition of non-financial assets, any amount that has been recognized in other comprehensive income (loss) is reclassified and included in the initial carrying amount of such assets.

The Group discontinues hedge accounting prospectively when the hedging instrument expires or is sold, or the hedge no longer meets the criteria for hedge accounting. Any amount incurred with respect to hedging instruments that have already been recognized in other components of equity is further recognized until forecast transactions are eventually recognized in profit or loss. When forecast transactions are no longer expected to occur, any amount incurred with respect to hedging instruments that has been recognized in other components of equity is immediately recognized in profit or loss.

#### (6) Inventories

Inventories are measured at the lower of cost or net realizable value. The cost of inventories is principally calculated based on the moving-average method. In addition, net realizable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated selling costs.

#### (7) Property, plant and equipment

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

Cost includes cost directly attributable to the acquisition of assets, dismantling and removal costs, restoration costs, and borrowing costs that meet requirements for asset capitalization.

#### (7) Property, plant and equipment (continued)

Each asset (excluding assets that are not subject to depreciation such as land) is depreciated using the straight-line method over its estimated useful life. The estimated useful lives of main asset items are as follows:

Buildings and structures: 3 to 50 years
Machinery and vehicles: 2 to 15 years

Estimated useful lives and the method of depreciation are reviewed at the end of each fiscal year. Any change in estimated useful lives and the depreciation method is accounted for on a prospective basis as a change in accounting estimate.

#### (8) Goodwill and intangible assets

#### 1) Goodwill

The measurement of goodwill at the time of initial recognition is described in "(2) Business combinations."

The Group does not amortize goodwill but conducts impairment tests every fiscal year or whenever there is an indication of impairment. The impairment loss on goodwill is recognized in profit or loss and is not subsequently reversed.

Furthermore, goodwill is stated at cost less accumulated impairment losses in the consolidated statement of financial position.

#### 2) Intangible assets

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

Individually acquired intangible assets are measured at a cost at the time of initial recognition, while intangible assets acquired through business combination are measured at fair value at the date of the acquisition.

Intangible assets are amortized using the straight-line method over their estimated useful lives. The estimated useful life of main asset item is as follows:

• Software: 5 years

#### (9) Leases

Lease liabilities are measured at the discounted present value of the residual amount of the total lease payments at the lease commencement date. Right-of-use assets are measured at the amount of the initial measurement of the lease liabilities with adjustments for the initial direct costs and prepaid lease payments and other elements together with costs such as obligations of restoration to the original conditions required under the lease agreements. Right-of-use assets are depreciated systematically over the shorter of the estimated useful life or the lease term.

The discount rate that shall be used in calculating the discounted present value of the residual amount of total lease payments is the interest rate implicit in the lease, if the rate can be readily determined, and if not, the lessee's incremental borrowing rate is used.

Lease payments are allocated to finance costs and repayments of lease liabilities in order to produce a constant rate of interest on the remaining balance of lease liabilities. Finance costs are disclosed separately from the depreciation and amortization of right-of-use assets in the consolidated statement of income.

Whether or not an agreement is, or contains, a lease is determined based on the substance of an agreement, even when it does not take the legal form of a lease.

Lease payments for leases with a term of 12 months or less, or the leases where the underlying asset is of low value are expensed on either a straight-line method over the lease term or another systematic method.

#### (10) Impairment of non-financial assets

Every fiscal year, the Group assesses each non-financial asset for any indications of impairment. In case there is an indication of impairment or in case the impairment tests are required every fiscal year, the recoverable amount of the asset is estimated. When the recoverable amount of an asset cannot be estimated, the recoverable amount of the cash-generating unit to which such assets are allocated is estimated. The Group conducts impairment tests of goodwill every fiscal year or whenever there is an indication of impairment. Goodwill is allocated to each cash-generating unit or a group of cash-generating units that are expected to benefit from the synergies of the business combination.

#### (10) Impairment of non-financial assets (continued)

The Group measures the recoverable amount of an asset or a cash-generating unit as the higher of fair value less costs of disposal or value in use. When the carrying value of an asset or a cash-generating unit exceeds its recoverable amount, impairment is recognized and its carrying value is reduced to its recoverable amount. In the calculation of value in use, the estimated future cash flows are discounted to their present value by using the pretax discount rate that reflects the present market valuation related to the time value of money and risks inherent in such asset. In the calculation of fair value less costs of disposal, the Group uses an appropriate valuation model that is supported by available fair-value indicators.

For an asset other than goodwill, the Group evaluates whether or not there is an indication that an impairment loss recognized in the asset in prior years has decreased or may no longer exist when there is a change in the assumptions that were used for calculating the estimated recoverable amount. If there is any such indication, the recoverable amount of such asset or cash-generating unit is estimated. When the recoverable amount exceeds the carrying value of the asset or cash-generating unit, the impairment loss is reversed to the extent of the recoverable amount calculated or the carrying value that would have been recorded, net of depreciation or amortization, if impairment had not been recognized in prior years, whichever is lower.

#### (11) Employee benefits

#### 1) Post-employment benefits

#### (i) Defined benefit plans

The Company and some of its subsidiaries have defined benefit pension plans and severance lump-sum payment plans as defined benefit plans. Under the defined benefit plans, the net present value of defined benefit obligations less the fair value of plan assets is recognized in assets or liabilities in the consolidated statement of financial position. The present value of defined benefit obligations is calculated using the projected unit credit method.

The difference in the remeasurement of net defined benefit assets or obligations is recognized in other comprehensive income (loss) in the fiscal year as incurred. Furthermore, past service cost is recognized in profit or loss in the fiscal year it is incurred.

#### (11) Employee benefits (continued)

#### 1) Post-employment benefits (continued)

#### (ii) Defined contribution plans

Some of the Company's subsidiaries have defined contribution pension plans. Defined contribution pension plans are post-employment benefit plans, under which the employer pays a certain amount of contributions to another independent entity and will have no legal or constructive obligations to pay further contributions. Contributions to the defined contribution pension plans are expensed in the period in which employees render services.

#### 2) Short-term employee benefits

Short-term employee benefits are measured on an undiscounted basis and are recognized as an expense when employees render the related services. For bonuses and compensated absences, estimated amounts paid based on these plans are recognized as liabilities when the Company has legal or constructive obligations to make such payments and reliable estimates of the amounts can be made.

#### (12) Share-based payment

The Company introduces the performance-based stock remuneration plan as an equity-settled share-based payment plan for directors and executive officers. Under the plan, services received are measured at the fair value of the Company's shares at the grant date, and recognized as expenses over the period from the grant date to the vesting date with a corresponding amount recorded as an increase in capital surplus. The fair value of the Company's shares at the grant date is measured based on observable market prices.

#### (13) Provisions

Provisions are recognized when the Group has present obligations (legal or constructive) as a result of past events, it is probable that the outflow of economic resources will be required to settle the obligations, and the amounts of the obligations can be reliably estimated.

When the time to settle an obligation is expected to be long, and thus the time value of money is significant, the amount of the provision is measured at the present value of the amount of expenditures expected to be required to settle the obligation. To calculate the present value, a pretax discount rate is used that reflects the time value of money and risks inherent in such asset.

#### (14) Revenue recognition

The Group recognizes revenue in accordance with the following five-step approach, except interest, dividend income and others under IFRS 9 "Financial Instruments".

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

The Group is engaged mainly in the manufacture and sale of the products related to the following businesses for Materials and Solutions. For the sale of the products, revenues are recognized upon delivery of the products to the customer since the customer obtains control over such products upon delivery of the products, and accordingly the performance obligation is satisfied. In addition, revenues are measured at the value of the consideration promised in the contracts with customers after deducting discounts, sales rebates, sales returns and others.

For the sale of waste gas treatment equipment in the Solutions business, revenues are recognized based on the progress of fulfilment of performance obligations since the performance obligations are satisfied over a period of time. The progress of fulfilment of performance obligations is measured using the cost-to-cost method (a method calculating revenue based on the percentage of cumulative actual costs incurred to estimated total costs at the end of the fiscal year) as it is considered that costs incurred properly reflect the progress of fulfilment of performance obligations.

#### (15) Government grants

Government grants are recognized at fair value when there is a reasonable assurance that the Group will comply with their collateral conditions and will receive the grants.

In case that the government grants are related to expense items, they are recognized in profit or loss on a systematic basis over the period in which the related costs for which the grants are intended to compensate are recognized. With regard to government grants for assets, the total amounts of the grants are deducted from the total acquisition costs of the assets.

#### (16) Income taxes

Income taxes, which consist of current taxes and deferred taxes, are recognized in profit or loss, except to the extent that they relate to items recognized in other comprehensive income (loss) or directly in equity.

Current income taxes are calculated by using the tax rates that have been enacted or substantially enacted at the end of the reporting period in countries where the Group operate businesses and generate taxable income.

Deferred tax assets and liabilities are recognized based on temporary differences between the tax base of assets and liabilities and their carrying values in the consolidated financial statements, using the asset-and-liability method. However, deferred tax assets and liabilities are not recognized for temporary differences in the following cases:

- · Temporary differences arising from the initial recognition of goodwill
- Temporary differences arising from the initial recognition of assets or liabilities in transactions (except business combinations) that affect neither of accounting profit or loss nor taxable income (including tax loss)
- Taxable temporary differences associated with investments in subsidiaries and affiliates if the Company is able to control the timing of the reversal of the temporary differences and it is probable that the temporary differences will not reverse in the foreseeable future

In principle, deferred tax liabilities are recognized for all taxable temporary differences. Deferred tax assets are recognized for deductible temporary differences, and unused tax losses and tax credit carryforwards only to the extent that it is probable that they can be used for future taxable income.

The carrying amount of deferred tax assets is reviewed every fiscal year and reduced to the extent that it is no longer probable that sufficient future taxable income will be available to realize benefits from all or some of the assets. Unrecognized deferred tax assets are reassessed every fiscal year and are recognized to the extent that it has become probable that future taxable income will allow the deferred tax assets to be recovered.

Deferred tax assets and liabilities are measured using the tax rates that have been enacted or substantially enacted by the end of the reporting period and are expected to be applied in the fiscal year when the related deferred tax assets are realized, or deferred tax liabilities are settled.

#### (16) Income taxes (continued)

Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities, and when deferred tax assets and liabilities are related to income taxes levied by the same taxation authority on the same taxable entities or either the same taxable entities or different taxable entities that intend to conduct the settlement on a net basis.

## (17) Equity

#### 1) Ordinary shares

With regard to ordinary shares issued by the Company, the issuance amount is recorded in share capital and capital surplus, and costs directly attributable to the issue of ordinary shares (net of tax effect) are deducted from share capital and capital surplus according to the ratio to the issuance amount.

## 2) Treasury shares

When treasury shares are acquired, consideration paid, including costs directly attributable to the transactions (net of tax effect), is recognized as a deduction from equity. When treasury shares are sold, consideration received is recognized as an increase in equity.

#### (18) Earnings (loss) per share

Basic earnings (loss) per share is calculated by dividing profit (loss) attributable to owners of parent by the average number of ordinary shares outstanding during the period. Diluted earnings per share is calculated by adjusting the effects of all potentially dilutive shares.

#### 4. Significant Accounting Estimates and Judgements

In preparation of the consolidated financial statements, the management makes judgements, estimates, and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income, and expenses. Actual results may differ from these estimates. Estimates and their underlying assumptions are reviewed continuously. The impact of revisions to accounting estimates is recognized in the accounting period in which the estimates are revised and in future accounting periods.

In the year ended March 31, 2023, the management has appropriately examined the effect of the uncertainties arising from the COVID-19 pandemic to the estimates and assumptions. It is difficult to accurately predict the future spread and timing of its containment, etc., but it will have limited effects on the business activities and performance of the Group. Accordingly, the Group has determined that there is little risk that material adjustments should be made to the carrying amount of the Group's assets or liabilities and associated revenue and costs in the year ending March 31, 2024.

Significant items on which management makes its estimates and judgements are as follows:

#### (1) Impairment of non-financial assets

The Group conducts impairment tests of tangible assets such as property, plant and equipment and intangible assets when there is an indication that the recoverable amount of the asset or the cash-generating unit is less than its carrying amount. In measuring the recoverable amount for the impairment testing, the Group makes certain assumptions about future cash flows, pretax discount rates, long-term growth rates, etc. These assumptions are made based on the best estimates and judgements of the management but could result in different outcome due to the uncertain economic conditions or revisions to the business plans in the future. If revisions to the assumptions become necessary, it may have significant impacts on the amounts recognized in the consolidated financial statements in the following fiscal years.

#### 4. Significant Accounting Estimates and Judgements (continued)

#### (1) Impairment of non-financial assets (continued)

#### 1) NIPPON SHOKUBAI EUROPE N.V.

In the year ended March 31, 2023, the Group performed an impairment review of property, plant and equipment (¥24,103 million as of March 31, 2023) held by NIPPON SHOKUBAI EUROPE N.V. (hereinafter "NSE"), a consolidated subsidiary of the Company in the Materials segment, based on its business plan, market interest rates, and other factors.

The business environment for superabsorbent polymers in Europe, where NSE is located, continues to be highly competitive as the prices of raw materials and fuel as well as inflationary pressures remain elevated under backdrop of an escalation in the conflict in Ukraine. However, sales prices are increasing along with rises in prices of raw materials and as a result of products market conditions, and the Company anticipates that the balance between supply and demand for superabsorbent polymers will improve over the medium-to long-term.

Considering these circumstances, as a result of the impairment review of property, plant and equipment held by NSE based on NSE's business plan, potential market interest rates, and other factors, the Company has determined that there is no indication of impairment.

The significant assumptions used in performing the impairment review are future sales volumes and sales prices underlying the business plan, and the discount rate calculated based on market interest rates and other factors. Future sales volume and sales prices are determined based on underlying factors such as information received from customers and future market outlook. In case sales volumes or sales prices are affected as a result that the balance of supply and demand of superabsorbent polymers or market forecasts fluctuate differently that expected, or in the event that the discount rate is affected by changes in future economic conditions, the valuation of property, plant and equipment may be significantly affected.

#### 2) Printing materials

In the year ended March 31, 2023, the Group determined that there was an indication of impairment for property, plant and equipment, etc., of \(\frac{1}{2}\)1,532 million recognized as of March 31, 2023 related to certain products for printing materials belonging to the Solutions segment due to a decline in profitability caused by changes in the business environment. As a result, the Company performed an impairment test.

The recoverable amount of the corresponding cash-generating unit has been measured at value in use determined by discounting future cash flows based on its business plan. As the result of the impairment test, the Group determined that it was not necessary to recognize an impairment loss because the recoverable amount exceeded the carrying amount.

#### 4. Significant Accounting Estimates and Judgements (continued)

#### (1) Impairment of non-financial assets (continued)

#### 2) Printing materials (continued)

The significant assumptions used for the valuation of the corresponding cash-generating unit are the future sales volumes and sales prices, and the future sales volumes and sales prices are determined based on factors including information received from customers and future market outlook, etc. In the event the actual business environment in the future is different than expected, it may significantly affect the estimate of the recoverable amount.

#### (2) Measurement of defined benefit obligations

The Group has funded and unfunded defined benefit plans and defined contribution plans to provide for the payment of retirements benefits to employees. The present values of the defined benefit obligations and associated service cost, etc. are measured based on actuarial assumptions. In determining the actuarial assumptions require estimates and judgements on various variables such as discount rates, retirement rates, and mortality rates. The Group is advised by external actuaries on the appropriateness of the actuarial assumptions including these variables.

Actuarial assumptions are determined based on the best estimates and judgements of the management, but are subject to the fluctuations of uncertain economic conditions and amendment/promulgation of relevant laws in the future, and if revisions to the assumptions become necessary, they may have significant impacts on the amounts recognized in the consolidated financial statements in the following fiscal years.

The details of the actuarial assumptions and the results of sensitivity analysis on these assumptions are described in Note "19 Employee Benefits".

#### 5. Segment Information

#### (1) Outline of reportable segments

The Group's reportable segments are divisions of the Group for which separate financial information is available, and whose operating results are reviewed regularly by the Board of Directors of the Company in order to allocate management resources and assess performance of operations.

The Group's business lines are divided based on similarities of function and nature, and the Group prepares the comprehensive strategy and conducts the business activities corresponding to the products handled by each business line.

Accordingly, the Group is comprised of two operating segments classified by type of products based on divided business lines. The Group does not aggregate the operating segments, and as a result, Materials and Solutions are the reportable segments for the Group.

The Group changed its three former operating segments and reportable segments (Basic Chemicals, Functional Chemicals and Environment and Catalysts) into the two operating segments and reportable segments (Materials business and Solutions business) effective from the first quarter of the year ended March 31, 2023.

This is based on a change in the business management structure under which the Group clarifies the goals and strategies of Materials business and Solutions business, and aims to transform the business portfolio through strategies incorporating the strategies of each segment in connection with the formulation of the overall Group's medium-term business plan that has begun from the year ended March 31, 2023.

Segment information for the year ended March 31, 2022 is disclosed based on the changed reportable segment.

Materials segment is engaged in manufacturing and sales of acrylic acids, acrylates, ethylene oxide, ethylene glycol, ethanolamine, special acrylates, superabsorbent polymers, maleic anhydride and process catalysts. Solutions segment is engaged in manufacturing and sales of polymers for concrete admixture, glycol ether, secondary alcohol ethoxylates, water-soluble polymer materials such as raw materials for detergents, pharmaceutical intermediates, electronic information material, iodine compounds, resins for adhesives and paints, ethyleneimine derivatives, adhesive products, automotive catalysts, De-NOx catalysts, dioxin decomposition catalysts, waste gas treatment equipment, wastewater treatment catalysts for catalytic wet air oxidation and battery materials.

#### (2) Calculation method of amounts of revenue, income or loss, assets, and other items

The accounting method for business segments reported is substantially the same as the accounting method adopted for preparing the consolidated financial statements which is described in the outline of Note "3 Significant Accounting Policies". Inter-segment revenue and transfers are mainly based on market prices and manufacturing costs. The total of segment income (loss) after adjustment agreed with operating profit (loss) in the consolidated statement of income.

#### (3) Information about revenue, profit or loss, assets, and other items

FY2021 (April 1, 2021 to March 31, 2022)

	Reportable segments				
	Materials	Solutions	Total	Adjustment (Notes 1 and 2)	Total
			(Millions of yer	ı)	
Revenue					
(1) Revenue to third					
parties	¥ 262,904	¥106,389	¥ 369,293	¥ –	¥ 369,293
(2) Inter-segment					
revenue and	1.4.500	2.405	15.014	(15.014)	
transfers	14,529	2,485	17,014	(17,014)	
Total	¥ 277,433	¥108,874	¥ 386,307	¥ (17,014)	¥ 369,293
Segment income (loss)	20,947	7,841	28,788	274	29,062
Finance income	_	_	_	_	1,932
Finance expenses	_	_	_	_	682
Share of profit (loss) of investments accounted					
for using equity method					3,362
Profit (loss) before income tax	¥ –	¥ –	¥ –	¥ –	¥ 33,675
Segment assets	333,603	138,495	472,097	46,054	518,151
Other items: Depreciation and					
amortization	22,542	6,333	28,875	_	28,875
Impairment losses	_	_	_	575	575
Increase in property,					
plant and equipment and intangible assets	18,596	4,517	23,113	_	23,113

(3) Information about revenue, profit or loss, assets, and other items (continued)

Notes: 1. The "Segment income (loss)" adjustment of ¥274 million includes inter-segment transaction eliminations and corporate profit (loss) not allocated to reportable segments.

2. The "Segment assets" adjustment of \( \frac{\pmathbf{4}}{46,054} \) million includes long-term surplus funds (investments in securities, etc.) held by the Group.

FY2022 (April 1, 2022 to March 31, 2023)

	Reportable segments								
	Ma	terials	Sol	lutions		Total	(N	ustment Notes 1 and 2)	Total
	-				(Mill	ions of yei	<u>n)</u>		
Revenue									
(1) Revenue to third									
parties	¥ 30	5,689	¥11.	3,879	¥ 4	19,568	¥	-	¥ 419,568
(2) Inter-segment									
revenue and		0.440				• • • • • • • • • • • • • • • • • • • •		4.020)	
transfers	-	8,412		,527		21,939	- <del>- `</del>	1,939)	. <u> </u>
Total	¥ 32	4,101	¥11	7,406	¥ 4	41,507	¥ (2	1,939)	¥ 419,568
Segment income (loss)	20	0,949	1	,503	,	22,452		1,076	23,528
Finance income		_		_		_		_	1,856
Finance expenses		_		_		_		_	1,134
Share of profit (loss) of									
investments accounted									
for using equity method								_	1,925
Profit (loss) before income	¥		V		W		V		V 26 175
tax			¥		¥		¥	_	¥ 26,175
Segment assets	33.	3,626	143	,969	4	77,595	4	5,724	523,319
Other items:									
Depreciation and									
amortization	2.	3,237	6	,076	2	29,312		-	29,312
Impairment losses		37	1	,517		1,554		_	1,554
Increase in property,									
plant and equipment									
and intangible assets	19	9,039	4	,594		23,634		_	23,634

Notes: 1. The "Segment income (loss)" adjustment of \(\xi\)1,076 million includes intersegment transaction eliminations and corporate profit (loss) not allocated to reportable segments.

2. The "Segment assets" adjustment of \( \frac{\pmathbf{4}}{4} \)5,724 million includes long-term surplus funds (investments in securities, etc.) held by the Group.

#### (4) Information about products and services

Please refer to "(3) Information about revenue, profit or loss, assets, and other items".

#### (5) Information about geographical areas

#### 1) Revenue

FY2021 (April 1, 2021 to March 31, 2022)

		North						
	Japan	Asia	Europe	America	Other	Total		
		(Millions of yen)						
Materials	¥ 89,803	¥ 82,533	¥ 52,419	¥ 24,598	¥ 13,550	¥ 262,904		
Solutions	69,290	20,093	4,512	10,254	2,240	106,389		
Total	¥ 159,093	¥102,627	¥ 56,931	¥ 34,852	¥ 15,790	¥ 369,293		

FY2022 (April 1, 2022 to March 31, 2023)

				North				
	Japan	Asia	Europe	America	Other	Total		
		(Millions of yen)						
Materials	¥ 108,437	¥ 87,223	¥ 70,280	¥ 23,392	¥ 16,357	¥ 305,689		
Solutions	73,619	21,863	4,139	11,488	2,771	113,879		
Total	¥ 182,056	¥109,085	¥ 74,418	¥ 34,880	¥ 19,128	¥ 419,568		

Notes: 1. Revenue is based on customer location and geographical areas or countries are classified according to geographical proximity.

2. Specific countries of each area:

(1) Asia: East and South East Asian countries

(2) Europe: European countries

(3) North America: North American countries

(4) Other: Areas or countries except Asia, Europe, North

America and Japan

#### (5) Information about geographical areas (continued)

#### 2) Non-current assets

	March 31, 2022	March 31, 2023
	(Million	es of yen)
Japan	¥ 118,823	¥ 115,683
Indonesia	41,900	45,040
Other Asia	8,005	7,591
Belgium	25,791	24,243
North America	5,986	6,895
Total	¥ 200,506	¥ 199,451

Note: Non-current assets are based on asset location and do not include financial instruments, deferred tax assets and net defined benefit asset, etc.

#### (6) Information about major customers

There is one customer group accounting for 10% or more of the revenue amounted to ¥63,555 million (Materials and Solutions) and ¥75,131 million (Materials and Solutions) for the years ended March 31, 2022 and 2023, respectively.

#### 6. Cash and Cash Equivalents

Cash and cash equivalents consist of cash and deposits. The balances of cash and cash equivalents in the consolidated statement of financial position agreed with the respective balances in the consolidated statement of cash flows as of March 31, 2022 and 2023.

#### 7. Trade Receivables

The details of trade receivables are as follows:

	March 31, 2022	March 31, 2023
	(Million	s of yen)
Notes and accounts receivable – trade	¥101,503	¥ 96,666
Electronically recorded monetary claims – operating	2,084	1,914
Allowance for doubtful accounts	(9)	(9)
Total	¥103,577	¥ 98,571

## 8. Inventories

The details of inventories are as follows:

	March 31, 2022	March 31, 2023
	(Million	is of yen)
Merchandise and finished goods	¥ 43,897	¥ 52,004
Work in process	7,241	6,108
Raw materials and supplies	24,173	27,945
Total	¥ 75,311	¥ 86,056

The amount of write-down of inventories recognized as an expense for the years ended March 31, 2022 and 2023 was \$1,752 million and \$3,200 million, respectively.

## 9. Other Financial Assets

## (1) Details

	March 31, 2022	March 31, 2023
_	(Million	s of yen)
Financial assets measured at amortized		
cost:		
Time deposits	¥ 9,294	¥ 8,650
Accounts receivable – other	2,314	3,776
Other	1,115	1,069
Allowance for doubtful accounts	(33)	(6)
Financial assets measured at fair value		
through profit or loss:		
Debt instruments	766	1,338
Derivative assets	_	7
Other	598	925
Financial assets measured at fair value		
through other comprehensive income		
(loss):		
Equity instruments	39,355	38,588
Other	0	0
Total	¥ 53,408	¥ 54,346
Current assets	12,427	14,151
Non-current assets	40,981	40,195

#### 9. Other Financial Assets (continued)

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

The Group has designated equity securities held for the purpose of maintaining and strengthening business relationships as financial assets measured at fair value through other comprehensive income.

The fair values of major equity securities are as follows:

	March 31, 2022	March 31, 2023	
	(Million	s of yen)	
Sanyo Chemical Industries, Ltd.	¥ 5,579	¥ 4,727	
FUSO CHEMICAL CO., LTD.	5,351	4,467	
Toyo Ink SC Holdings Co., Ltd.	3,161	3,415	

The Group reviews the importance of holding the equity securities in accordance with the Group's policy, and sells the equity securities where the importance are weakened from the view of the efficiency of assets utilization.

Fair values and accumulated gains (losses) on sales of equity securities as of March 31, 2022 and 2023 are as follows. Accumulated gains (losses) on sales (after tax effect) are transferred from other accumulated comprehensive income (loss) to retained earnings.

	Years ended March 31,			
	2022	2023		
	(Million.	s of yen)		
Fair values at the date of sales	¥1,728	¥ 822		
Accumulated gains (losses) before tax effect	951	460		
Accumulated gains (losses) after tax effect	660	342		

# 10. Property, Plant and Equipment

The following tables present changes in acquisition costs, accumulated depreciation and accumulated impairment losses, and carrying amounts of property, plant and equipment.

	Buildings	Maah:	Tools, furniture		Construction	
Historical cost	and structures	Machinery and vehicles	and fixtures	Land	in progress	Total
Tristorical cost	structures	and venicies	(Millions		in progress	
Balance as of April 1, 2021	¥ 128,695	¥ 435,924	¥ 24,315	¥ 35,887	¥ 28,365	¥ 653,186
Acquisition	212	62	46	27	19,635	19,983
Transfer from construction in	212	02	10	2,	15,055	17,703
progress	4,620	13,957	1,089	15	(19,682)	_
Disposal	(1,213)	(8,643)	(542)	(192)	(24)	(10,614)
Effect of foreign exchange	( ) - )	(-))	(- )	( - )	( )	( - ) -
rate fluctuation	2,096	11,958	311	171	2,338	16,875
Other changes	(1)	683	(6)	_	266	942
Balance as of March 31, 2022	¥ 134,410	¥ 453,940	¥ 25,214	¥ 35,908	¥ 30,899	¥ 680,371
Acquisition	711	271	5	22	20,553	21,564
Transfer from construction in					ŕ	ŕ
progress	1,534	12,807	2,094	151	(16,586)	_
Disposal	(1,310)	(7,104)	(718)	(20)	_	(9,152)
Effect of foreign exchange						
rate fluctuation	1,912	11,671	212	114	2,198	16,106
Other changes	2	(600)	19	_	457	(122)
Balance as of March 31, 2023	¥ 137,260	¥ 470,985	¥ 26,826	¥ 36,176	¥ 37,520	¥ 708,767
Accumulated depreciation	Buildings	36 11	Tools,			
and accumulated	and	Machinery	furniture	T 3	Construction	T-4-1
impairment losses	structures	and vehicles	and fixtures	Land	in progress	Total
D-1	V (70 400)	V (257 407)	(Millions		V (7)	V (450 000)
Balance as of April 1, 2021	¥ (79,400)	¥ (357,407)	¥ (19,928)	¥ (3,247) (86)	¥ (7)	¥ (459,989)
Depreciation Impairment losses	(4,658) (153)	(22,069)	(1,623)	(422)	_	(28,437) (575)
Disposal	1,181	8,250	535	22	_ 8	9,995
Effect of foreign exchange	1,101	8,230	333	22	o	9,993
rate fluctuation	(925)	(9,089)	(243)	(27)	(1)	(10,285)
Other changes	5	51	5	(27)	(1) -	62
Balance as of March 31, 2022	¥ (83,950)	¥ (380,265)	¥ (21,254)	¥ (3,760)	¥ -	¥ (489,229)
Depreciation	(4,815)	(21,519)	(1,665)	(90)	<b>#</b> -	(28,089)
Impairment losses	(882)	(634)	(4)	(70)	(30)	(1,549)
Disposal	1,246	7,091	709	20	(30)	9,066
Effect of foreign exchange	1,270	7,071	107	20		2,000
rate fluctuation	(797)	(8,764)	(167)	(30)	_	(9,758)
Other changes	(1)	316	(2)	-	_	313
Balance as of March 31, 2023	¥ (89,199)	¥ (403,775)	¥ (22,384)	¥ (3,860)	¥(30)	¥ (519,247)
Datafice as of Ivial cit 51, 2025	(02 )=27)	(100)	(==,===)	- (-,)	-(,	( ;)

# 10. Property, Plant and Equipment (continued)

	Buildings		Tools,			
	and	Machinery	furniture		Construction	
Carrying amount	structures	and vehicles	and fixtures	Land	in progress	Total
			(Millions	of yen)		
As of April 1, 2021	¥ 49,295	¥ 78,517	¥ 4,388	¥ 32,640	¥ 28,358	¥ 193,197
As of March 31, 2022	50,460	73,676	3,960	32,148	30,899	191,143
As of March 31, 2023	48,061	67,210	4,443	32,316	37,490	189,520

- Note: 1. Depreciation of property, plant and equipment is included in "cost of sales," "selling, general and administrative expenses," and "other operating expenses" in the consolidated statement of income.
  - 2. The details of impairment losses are described in Note "12. Impairment Losses of Non-financial Assets".
  - 3. Expenditures for property, plant and equipment under construction are stated as "construction in progress".
  - 4. The amount of borrowing cost capitalized were \quantum 348 million and \quantum 637 million for FY2021 and FY2022, respectively.
  - 5. Right-of-use assets included in the carrying amount of property, plant and equipment are described in Note "30. Leases".

# 11. Goodwill and Intangible Assets

# (1) Schedule of movements

			Intangible assets				
			Techn				
Historical cost	Goo	dwill	related	assets	Software	Other	Total
			·	(A	<i>Iillions of yen)</i>		
Balance as of April 1, 2021	¥ 4	,065	¥ 6	,055	¥ 2,304	¥ 6,165	¥ 14,523
Acquisition		_		_	92	1,978	2,070
Transfer		_		_	1,345	(1,345)	1
Disposal	(4	,366)	(6,	,502)	(309)	(161)	(6,973)
Effect of foreign exchange rate fluctuation		300		448	30	350	827
Balance as of March 31, 2022	¥	_	¥	_	¥ 3,462	¥ 6,986	¥ 10,448
Acquisition		_		_	51	1,382	1,433
Transfer		_		_	3,382	(3,366)	16
Disposal		_		_	(203)	(5)	(208)
Effect of foreign exchange rate fluctuation		_		_	19	304	323
Balance as of March 31, 2023	¥	_	¥	_	¥ 6,711	¥ 5,301	¥ 12,012

Accumulated amortization			Intangible assets					
and accumulated impairment losses	Goo	dwill		nology- d assets	Software	Other	Total	
				(N	<i>(Iillions of yen)</i>			
Balance as of April 1, 2021	¥ (4	,065)	¥ (6	,055)	¥ (1,542)	¥ (938)	¥ (8,535)	
Amortization		_		_	(380)	(58)	(438)	
Impairment losses		_		_	_	_	_	
Disposal	4	,366	6	,502	309	161	6,973	
Effect of foreign exchange rate fluctuation		(300)		(448)	(20)	(86)	(553)	
Balance as of March 31, 2022	¥	_	¥	_	¥ (1,633)	¥ (920)	¥ (2,553)	
Amortization		_		_	(1,156)	(67)	(1,223)	
Impairment losses		_		_	(5)	_	(5)	
Disposal		_		_	203	4	206	
Effect of foreign exchange rate fluctuation					(15)	(65)	(80)	
Balance as of March 31, 2023	¥		¥		¥ (2,607)	¥(1,048)	¥ (3,655)	

## 11. Goodwill and Intangible Assets (continued)

## (1) Schedule of movements (continued)

			Intangible assets				
	~			ology-	G . 0:	0.1	<b>75</b> . <b>1</b>
Carrying amount	<u>G00</u>	dwill	related	l assets	Software	<u>Other</u>	<u>Total</u>
				(M	<i>(lillions of yen)</i>		
As of April 1, 2021	¥	_	¥	_	¥ 761	¥ 5,227	¥ 5,989
As of March 31, 2022		_		_	1,829	6,066	7,895
As of March 31, 2023		_		_	4,104	4,253	8,358

- Note: 1. Amortization of intangible assets is included in "cost of sales" and "selling, general and administrative expenses" in the consolidated statement of income.
  - 2. The details of impairment losses are described in Note "12. Impairment Losses of Non-financial Assets".

# (2) Significant intangible assets

None of the intangible assets presented in the consolidated statement of financial position were individually significant as of March 31, 2022 and 2023.

#### (3) Other disclosures

The Group's expenditures for research and development activities that are recognized as expenses in FY2021 and FY2022 are \(\frac{1}{2}\)15,182 million and \(\frac{1}{2}\)15,753 million, respectively. The expenditures are included in "cost of sales" and "selling, general and administrative expenses" in the consolidated statement of income.

## 12. Impairment Losses of Non-financial Assets

Based on the business segments, the Group determines asset groupings by the smallest unit that generates independent cash flows. Furthermore, the Group classifies individual assets that are not expected to be used in the future as a single unit.

## (1) Electronic information materials

The Group recognized an impairment loss on property, plant and equipment, etc., of ¥1,517 million related to certain products for electronic information materials belonging to the Solutions segment for the year ended March 31, 2023.

As the Group has determined that it will take some time for display-related demand to recover, it reviewed the business plan for products whose profitability has declined due to changes in the business environment and evaluated the future recoverability of property, plant and equipment, etc. As a result, in the year ended March 31, 2023, the Group reduced the carrying amount of buildings and structures, machinery and vehicles, etc., to its memorandum value. Impairment losses were recognized under other operating expenses in the consolidated statement of income.

The recoverable amount is measured at value in use based on the business plan. The significant assumptions used to calculate value in use are sales volume and sales prices, which are based on information received from customers and future market outlook, etc. The disclosure of the discount rate is omitted because undiscounted future cash flows are negative.

#### (2) Employee welfare facilities

FY2021 (April 1, 2021 to March 31, 2022)

For the year ended March 31, 2022, the Group reduced the carrying value of the land, buildings, and structures related to its employee welfare facilities in Sanda, Hyogo Prefecture, which do not belong to any reportable segments as corporate assets, to the recoverable value and recorded the reduction as an impairment loss (¥575 million) under "other operating expenses" since there is no planned future use and categorized the facilities as idle assets at the end of year ended March 31, 2022.

The recoverable amount of these assets is measured at fair value less costs of disposal, which is determined based on real estate appraisal and other information. The hierarchy of the fair value is Level 3.

FY2022 (April 1, 2022 to March 31, 2023)

There are no impairment of losses in FY 2022.

# 13. Investments Accounted for Using the Equity Method

The carrying amounts of investments in affiliates and joint ventures individually immaterial are as follows:

	<b>March 31, 2022</b>	March 31, 2023
	(Million	as of yen)
Total carrying amount	¥ 22,868	¥ 27,088

The Group's shares of comprehensive income (loss) of affiliates and joint ventures individually immaterial are as follows:

	Years ende	d March 31,
	2022	2023
	(Million	s of yen)
Group's share of profit (loss)	¥ 3,362	¥ 1,925
Group's share of other comprehensive income (loss)	378	1,556
Group's share of comprehensive income (loss)	¥ 3,740	¥ 3,481

# 14. Income Taxes

# (1) Schedule of movements

The breakdown of deferred tax assets and liabilities and its movements are as follows:

FY2021 (April 1, 2021 to March 31, 2022)

		ginning alance	Recognized through profit or loss	Recognized through other comprehensive income (loss)	Other	Ending balance
Deferred tax assets:				(Millions of yen)		
Depreciation (including						
impairment losses)	¥	1,758	¥ 197	¥ –	¥104	¥ 2,059
Accrued bonuses		852	225	_	1	1,079
Net defined benefit						ŕ
liability		506	(22)	(442)	39	80
Unrealized income			,	,		
(loss)		310	47	_	_	357
Loss carried forward		933	(299)	_	72	706
Investments in			, ,			
subsidiaries		3,634	(2,403)	_	_	1,231
Other		1,141	428	_	5	1,574
Total deferred tax assets	¥	9,134	¥(1,829)	¥ (442)	¥221	¥ 7,085
Deferred tax liabilities:		,	( ) ,	,		ŕ
Depreciation (overseas						
subsidiaries)		(325)	212	_	(16)	(129)
Financial assets						
measured at fair value						
through other						
comprehensive income						
(loss)		(5,789)	_	1,059	_	(4,730)
Retained income (loss)						
of subsidiaries and						
affiliates		(3,014)	(839)	(323)	_	(4,176)
Other		(827)	(66)	_	(42)	(936)
Total deferred tax						
liabilities	¥	(9,955)	¥ (693)	¥ 736	¥ (58)	¥ (9,970)
Net deferred tax assets						
(liabilities)	¥	(821)	¥(2,521)	¥ 294	¥163	¥ (2,885)

# (1) Schedule of movements (continued)

FY2022 (April 1, 2022 to March 31, 2023)

	Beginning balance	Recognized through profit or loss	Recognized through other comprehensive income (loss) (Millions of yen)	Other	Ending balance
Deferred tax assets:					
Depreciation (including					
impairment losses)	¥ 2,059	¥ 572	<b>¥</b> −	¥100	¥ 2,731
Accrued bonuses	1,079	199	_	1	1,278
Net defined benefit					
liability	80	_	_	(80)	_
Unrealized income					
(loss)	357	131	_	_	488
Loss carried forward	706	(44)	_	65	726
Investments in	1 221	(4 = 4)			1.070
subsidiaries	1,231	(171)	_	0	1,060
Other	1,574	354			1,929
Total deferred tax assets	¥ 7,085	¥ 1,041	¥ -	¥ 86	¥ 8,212
Deferred tax liabilities:					
Depreciation (overseas	(120)	(115)		(10)	(252)
subsidiaries) Financial assets	(129)	(115)	_	(10)	(253)
measured at fair value					
through other					
comprehensive income					
(loss)	(4,730)	_	(34)	_	(4,764)
Retained income (loss)	(4,750)		(04)		(4,704)
of subsidiaries and					
affiliates	(4,176)	(229)	(338)	_	(4,742)
Net defined benefit asset	-	241	(653)	109	(303)
Other	(936)	(111)	_	(29)	(1,076)
Total deferred tax					
liabilities	¥ (9,970)	¥ (214)	¥ (1,025)	¥ 70	¥(11,138)
Net deferred tax assets			- <u></u>		
(liabilities)	¥ (2,885)	¥ 827	¥ (1,025)	¥157	¥ (2,926)
			<del></del>		

(2) Supplemental remarks to the Note "(1) Schedule of movements"

Loss carried forward and deductible temporary differences for which deferred tax assets are not recognized are as follows:

	March 31, 2022	March 31, 2023
	(Million	s of yen)
Deductible temporary differences	¥ 20,486	¥ 18,107
Loss carried forward	17,439	19,181

In evaluating recoverability of deferred tax assets, the Group considers the scheduled reversal of deferred tax liabilities, projected future taxable income, and tax planning. As a result of the evaluation of recoverability, it does not recognize deferred tax assets for certain deductible temporary differences and loss carried forward.

The amount of loss carried forward for which deferred tax assets are not recognized and the expiration of carryforward are as follows:

	March 31, 2022	March 31, 2023
	(Million	as of yen)
Loss carried forward:		
Within 5 years	¥ 2,884	¥ 1,740
Beyond 5 years	14,555	17,441
Total	¥ 17,439	¥ 19,181

# (3) Income tax expenses

The breakdown of income tax expenses are as follows:

Years ended March 31,		
2022	2023	
(Million	ns of yen)	
¥ 6,683	¥ 6,842	
2,656	(823)	
(135)	(5)	
2,521	(827)	
¥ 9,204	¥ 6,015	
	2022 (Million) ¥ 6,683 2,656 (135) 2,521	

Current tax expenses include the amount of benefits arising from loss carried forward and temporary differences recognized in prior periods, for which deferred tax assets were not recognized in prior periods. These effects decreased current tax expenses by ¥69 million and ¥2 million for FY2021 and FY2022, respectively.

Deferred tax expenses include the amount of benefits arising from loss carried forward and temporary differences recognized in prior periods, for which deferred tax assets were not recognized in prior periods. These effects decreased deferred tax expenses by ¥17 million and ¥5 million for FY2021 and FY2022, respectively.

Adjustments between the effective statutory tax rate and the effective tax rate are as follows:

	Years ended	l March 31,
	2022	2023
Effective statutory tax rate	30.6%	30.6%
Tax credits for research and development		
expenses	(3.3%)	(4.9%)
Difference between effective statutory tax rate		
and consolidated subsidiary's tax rate	(2.1%)	(2.6%)
Share of profit (loss) of investments		
accounted for using equity method	(3.1%)	(2.3%)
Changes in unrecognized deferred tax assets	2.4%	0.8%
Retained income (loss) of subsidiaries and		
affiliates	2.5%	0.9%
Other	0.4%	0.4%
Effective tax rate	27.3%	23.0%
<del>-</del>		

# (3) Income tax expenses (continued)

The Group is mainly subject to income tax, inhabitant tax, and enterprise tax. The effective statutory tax rate calculated based on these taxes was 30.6% for FY2021 and FY2022. However, foreign subsidiaries are subject to the tax rates at their locations.

# 15. Trade Payables

The breakdown of trade payables is as follows:

	March 31, 2022	March 31, 2023	
	(Millions of yen)		
Account payables – trade and other			
payables	¥ 57,616	¥ 53,138	
Total	¥ 57,616	¥ 53,138	

# 16. Interest-Bearing Debt

# (1) Borrowings

			Average interest	
	March 31, 2022	March 31, 2023	rate	Maturity
	(Million	as of yen)		
Short-term borrowings	¥ 10,657	¥ 11,403	1.31%	
Current portion of long-term borrowings	12,902	11,641	2.08%	
				2024 to
Long-term borrowings	28,634	27,867	1.87%	2028
Total	¥ 52,193	¥ 50,912	_	
Current liabilities	23,559	23,044	_	
Non-current liabilities	28,634	27,867	_	

Note: The average interest rates and maturity are for the balances at the end of FY2022.

# 16. Interest-Bearing Debt (continued)

# (2) Lease liabilities

	March 31, 2022	March 31, 2023	Average interest rate
	(Million	ns of yen)	
Lease liabilities	¥ 7,484	¥6,700	1.97%
Current liabilities	1,431	1,467	_
Non-current liabilities	6,053	5,233	_

Note: 1. The average interest rate is applicable for FY2022.

2. Lease liabilities are included in "other financial liabilities" in the consolidated statement of financial position.

# (3) Pledged assets

Assets pledged as collateral and secured debt are as follows:

Assets pledged as collateral

	March 31, 2022	March 31, 2023	
	(Millions of yen)		
Property, plant and equipment	¥ 273	¥ 273	
Other financial assets	8	8	
Total	¥ 281	¥ 281	

## Secured debt

	March 31, 2022	March 31, 2023
	(Million	ns of yen)
Trade payables	¥ 6	¥ 12
Short-term borrowings	515	410
Total	¥ 521	¥ 422

# 17. Reconciliation of Liabilities Arising from Financing Activities

FY2021 (April 1, 2021 to March 31, 2022)

Non-cash changes Foreign **Beginning** Changes in exchange **Ending** Item balance cash flows Acquisition fluctuations Other balance (Millions of yen) Short-term borrowings ¥ 4,323 ¥ 6,227 ¥ ¥ 107 ¥ ¥ 10,657 Long-term borrowings 38,545 312 2,678 41,536 Bonds 10,000 (10,000)Lease 428 7,484 8,704 (1,906)259 (2) liabilities ¥ ¥ 3,213 ¥ ¥ 59,677 ¥61,572 ¥ (5,366) 259 (2) Total

FY2022 (April 1, 2022 to March 31, 2023)

			Non-cash changes			
Item	Beginning balance	Changes in cash flows	Foreign exchange Acquisition fluctuations Other		Other	Ending balance
			(Milli	ons of yen)		
Short-term			,			
borrowings	¥ 10,657	¥ 544	¥ –	¥ 202	¥ -	¥ 11,403
Long-term						
borrowings	41,536	(4,621)	_	2,594	_	39,508
Bonds	_	_	_	_	_	_
Lease						
liabilities	7,484	(2,110)	1,011	405	(90)	6,700
Total	¥ 59,677	¥ (6,187)	¥ 1,011	¥ 3,201	¥ (90)	¥ 57,612

#### 18. Provisions

The breakdown and movements in provisions are as follows:

FY2021 (April 1, 2021 to March 31, 2022)

	Provision for bonuses	Asset retirement obligations	Other provisions	Total
		(Million	s of yen)	
Beginning balance	¥ 3,265	¥ 2,157	¥ 1,469	¥ 6,891
Increases during				
the period	8,896	69	1,800	10,765
Provision utilized	(8,178)	_	(1,354)	(9,532)
Other	30	121	3	154
Ending balance:	¥ 4,013	¥ 2,347	¥ 1,918	¥ 8,278
Current liabilities	4,013	_	1,918	5,931
Non-current liabilities	_	2,347	_	2,347

FY2022 (April 1, 2022 to March 31, 2023)

	Provision for bonuses	Asset retirement obligations	Other provisions	Total
		(Million	s of yen)	_
Beginning balance	¥ 4,013	¥ 2,347	¥ 1,918	¥ 8,278
Increases during				
the period	8,627	77	1,903	10,606
Provision utilized	(7,948)	_	(1,881)	(9,829)
Other	37	159	4	199
Ending balance:	¥ 4,728	¥ 2,582	¥ 1,943	¥ 9,254
Current liabilities	4,728	_	1,943	6,672
Non-current liabilities	_	2,582	_	2,582

#### Provision for bonuses

To provide for payment of bonuses to employees, provision for bonuses is recorded in FY 2022 based on an estimate of the amount to be paid.

# Asset retirement obligations

To provide for obligations to restore plant and equipment and premises that the Group uses and removal of hazardous materials, the Group records asset retirement obligations based on estimated amounts to be paid in the future based on past results. Although these expenses are estimated to be mainly paid after one year or more, they may be affected by future business plans.

# 19. Employee Benefits

# (1) Outline of post-employment benefit system

The Company and its major subsidiaries operate both funded and unfunded defined benefit plans and defined contribution plans to cover payment of net defined benefits to employees.

Under the defined benefit corporate pension plans (funded plans), lump-sums or pensions are paid in accordance with employees' salaries and service years. Under the lump-sums retirement benefit plans (unfunded plans), lump-sums are paid as defined benefit based on employees' salaries and service years. The Company introduces a cash balance plan for the defined benefit pension plan and lump-sums retirement benefit plan. Under the cash balance plan, a hypothetical account that is equivalent to amounts credited and pension fund is prepared for each eligible employee. Primarily, interest credits based on market interest trends and contribution credits based on employees' salary levels are accumulated in the hypothetical account.

These pension plans are exposed to investment risk, interest rate risk, inflation risk, and others.

# (2) Defined benefit plans

# 1) Reconciliation of present value of defined benefit obligations

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

	Years ended March 31,	
	2022	2023
•	(Million.	s of yen)
Beginning balance of the present value of		
defined benefit obligations:	¥ 41,753	¥ 41,185
Service cost	1,917	1,587
Interest cost	341	439
Remeasurements of defined benefit plans:		
Actuarial gains and losses arising from		
changes in demographic assumptions	(19)	(21)
Actuarial gains and losses arising from		
changes in financial assumptions	(1,268)	(3,077)
Other	312	(99)
Past service cost	_	1,249
Benefits paid	(2,176)	(2,499)
Other	325	160
Ending balance of the present value of	V 41 107	W 20 02#
defined benefit obligations	¥ 41,185	¥ 38,925

- (2) Defined benefit plans (continued)
  - 1) Reconciliation of present value of defined benefit obligations (continued)
    - Note: 1. The weighted average durations of defined benefit obligations are 17.6 years and 16.1 years for the years ended March 31, 2022 and 2023, respectively.
      - 2. The past service cost for the fiscal year ended March 31, 2023 represents the amount of increase in the present value of defined benefit obligations arising from the revision of the defined benefit plans of the Company, mainly due to the redesign of the wage curve.
  - 2) Changes in the fair value of plan assets

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

	Years ended March 31,		
	2022	2023	
	(Million.	s of yen)	
Beginning balance of the fair value of plan assets:	¥ 39,162	¥ 39,960	
Interest income	281	365	
Remeasurements of defined benefit plans:			
Return on plan assets	520	(939)	
Employer contributions	1,084	1,086	
Benefits paid	(1,193)	(1,398)	
Other	106	39	
Ending balance of the fair value of plan assets	¥ 39,960	¥ 39,113	

Note: The employer contributions for FY2023 are expected to be \(\frac{\pma}{1}\),367 million.

3) Reconciliation of the ending balances of defined benefit obligations and plan assets and amounts reported in the consolidated statement of financial position

Amounts reported in the consolidated statement of financial position are as follows:

	March 31, 2022	March 31, 2023
	(Million	s of yen)
Present value of defined benefit obligations	¥ (41,185)	¥ (38,925)
Fair value of plan assets	39,960	39,113
Net amount of liabilities and assets reported in the consolidated statement of financial position	¥ (1,225)	¥ 188
Amounts reported in the consolidated statement		
of financial position:		
Net defined benefit liability	¥ (14,044)	¥ (8,941)
Net defined benefit asset	12,820	9,129
Net amount of liabilities and assets reported in the consolidated statement of financial position	¥ (1,225)	¥ 188

## (2) Defined benefit plans (continued)

# 4) Breakdown of plan assets

The composition of fair value of plan assets for each fiscal year is as follows:

FY2021 (As of March 31, 2022)

	With quoted market price in an active market	With no quoted market price in an active market	Total
		(Millions of yen)	
Debt instruments	¥ -	¥ 30,399	¥ 30,399
Equity instruments	64	5,839	5,903
General account	_	179	179
Cash and deposits	722	_	722
Other		2,757	2,757
Total	¥ 787	¥ 39,174	¥ 39,960

Note: 1. Debt instruments include alternative investments whose risk level is equivalent to that of bonds.

- 2. Debt instruments are mainly composed of bonds in Japan.
- 3. The total of plan assets includes 0.3% of employee pension trust set up for the corporate pension plan.

FY2022 (As of March 31, 2023)

	With quoted price in an active market	With no quoted price in an active market	Total
		(Millions of yen)	
Debt instruments	¥ -	¥ 29,184	¥ 29,184
Equity instruments	80	6,123	6,203
General account	_	179	179
Cash and deposits	687	_	687
Other	_	2,860	2,860
Total	¥ 767	¥ 38,346	¥ 39,113

Note: 1. Debt instruments include alternative investments whose risk level is equivalent to that of bonds.

- 2. Debt instruments are mainly composed of bonds in Japan.
- 3. The total of plan assets includes 0.3% of employee pension trust set up for the corporate pension plan.

### (2) Defined benefit plans (continued)

## 4) Breakdown of plan assets (continued)

To ensure the payment pension benefits and lump-sums in the future, the plan assets are managed to secure necessary aggregate return over the long term considering the medium-term downside risks.

To achieve the objective, the asset portfolio is determined after considering basic factors, such as the expected return, risk, and correlation coefficient, and the target asset allocation based on safety and efficiency from a medium- to long-term diversified investment viewpoint and is reviewed as necessary.

#### 5) Significant actuarial assumptions

Main actuarial assumptions used for calculating the present value of defined benefit obligations are as follows:

	March 31, 2022	March 31, 2023
Discount rate	0.89%	1.42%

#### 6) Sensitivity analysis of defined benefit obligations

The sensitivity analysis of defined benefit obligations pertaining to changes in the weighted average of significant actuarial assumptions is as follows:

		March 31, 2022	March 31, 2023
		(Million	s of yen)
Discount rate	0.5% increase	¥ (2,738)	¥ (2,268)
	0.5% decrease	3,096	2,530

The above sensitivity analysis assumes that all other assumptions other than the one analyzed remain unchanged. In reality, any change in assumptions may occur interrelatedly.

In calculating the sensitivity of defined benefit obligations to the significant actuarial assumptions, the same method that is used to calculate defined benefit obligations recognized in the consolidated statement of financial position (the present value of defined benefit obligations calculated by the projected unit credit method at the end of the reporting period) is applied.

# (3) Defined contribution plan

The expenses reported with regard to the defined contribution pension plans (including public pension plans in countries where the Group's companies are located) were \mathbb{\fi}132 million for FY2021 and \mathbb{\fi}147 million for FY2022.

### (4) Employee benefit expenses

The employee benefit expenses other than net defined benefits included in the consolidated statement of income were \(\frac{4}{4}\)0,730 million for FY2021 and \(\frac{4}{2}\)42,398 million for FY2022.

Employee benefit expenses are mainly composed of salaries, bonuses, and expenses for paid leave, and are included in "cost of sales" and "selling, general and administrative expenses" in the consolidated statement of income.

### 20. Equity and Other Equity Items

### (1) Share capital and treasury shares

The number of shares authorized, class of shares issued, total number of shares issued, and class and number of treasury shares are as follows:

	Years ended March 31,		
	2022	2023	
Class of shares	No-par value common stock	No-par value common stock	
Number of shares authorized	•	-	
(Thousands of shares)	127,200	127,200	
Shares issued:			
Number of shares at beginning of period			
(Thousands of shares)	40,800	40,800	
Changes in number of shares during the			
period (Thousands of shares)			
Number of shares at end of period	40.000	40.000	
(Thousands of shares)	40,800	40,800	
Treasury shares:			
Number of shares at beginning of period			
(Thousands shares)	924	925	
Changes in number of shares during the			
period (Thousands of shares) (Notes 1			
and 2)	0	561	
Number of shares at end of period			
(Thousand shares) (Notes $\hat{3}$ )	925	1,486	

Note: 1. Changes in the number of treasury shares in the year ended March 31, 2022 represent the increase due to the acquisition of shares less than one unit.

## 20. Equity and Other Equity Items (continued)

- (1) Share capital and treasury shares(continued)
  - 2. Changes in the number of treasury shares in the year ended March 31, 2023 represent the increase due to open market purchase on the Tokyo Stock Exchange based on the resolution of the board of directors meeting held on November 7, 2022 and the acquisition of shares less than one unit.
  - 3. The number of treasury shares includes 48,600 shares of treasury shares held in the trust account in connection with the performance-based share remuneration plan for its directors and executive officers as of March 31, 2023.

## (2) Surplus

# 1) Capital surplus

The Companies Act of Japan ("Companies Act") provides that at least one-half of paid-in or contribution for the issuance of shares shall be credited to share capital and the rest be appropriated as capital reserve within capital surplus.

Capital reserves can be appropriated as share capital by resolution at the shareholders' meeting.

Changes in capital surplus include the effect of equity-settled share-based payments transaction under the performance-based share remuneration plan of the Company. For details, refer to Note "28. Share-Based Payment".

## 2) Retained earnings

The Companies Act requires that one-tenth of retained earnings appropriated for dividends be retained as capital reserve or earned legal reserve until the total amount of earned legal reserve included in capital reserve and retained earnings reaches a quarter of share capital. Earned legal reserves may be reversed by resolution at the shareholders' meeting.

# (3) Other components of equity

1) Net changes in financial assets measured at fair value through other comprehensive income (loss)

It represents the difference between the historical cost and fair value of equity financial instruments measured at fair value through other comprehensive income (loss). When disposing of equity financial instruments measured at fair value through other comprehensive income (loss), the Group transfers the difference between the historical cost and fair value from other components of equity to retained earnings.

# 20. Equity and Other Equity Items (continued)

## (3) Other components of equity (continued)

# 2) Remeasurement of defined benefit plans

It represents changes in the present value of defined benefit obligations arising from the change of actuarial assumptions and experience adjustments and the difference between projected and actual return of the plan assets. These are recognized as other comprehensive income (loss) as incurred and are immediately transferred from other components of equity to retained earnings.

# 3) Exchange differences on translation of foreign operations

It represents foreign exchange translation differences that occur when translating financial statements of foreign operations prepared in foreign currencies into Japanese yen, the Group's functional currency.

#### 21. Dividends

FY2021 (April 1, 2021 to March 31, 2022)

#### (1) Dividends paid

Resolution	Class of shares	Total dividends (millions of yen)	Dividends per share (yen)	Record date	Effective date
Ordinary General Meeting of Shareholders held on June 22, 2021	Common stock	¥ 1,794	¥ 45.00	March 31, 2021	June 23, 2021
Board of Directors meeting held on November 5, 2021	Common stock	3,190	80.00	September 30, 2021	December 6, 2021

# (2) Dividends whose record date falls in FY2021 and the effective date falls in FY2022

Resolution	Class of shares	Source of dividends	Total dividends (millions of yen)	Dividends per share (yen)	Record date	Effective date
Ordinary General Meeting of Shareholders held on June 21, 2022	Common stock	Retained earnings	¥ 3,987	¥ 100.00	March 31, 2022	June 22, 2022

# 21. Dividends (continued)

FY2022 (April 1, 2022 to March 31, 2023)

# (1) Dividends paid

Resolution	Class of shares	Total dividends (millions of yen)	Dividends per share (yen)	Record date	Effective date
Ordinary General Meeting of Shareholders held on June 21, 2022	Common stock	¥ 3,987	¥ 100.00	March 31, 2022	June 22, 2022
Board of Directors meeting held on November 7, 2022	Common stock	3,593	90.00	September 30, 2022	December 5, 2022

Note: The total amount of dividends resolved by the Board of Directors on November 7, 2022 includes dividends payment of \( \frac{\pmathbf{4}}{4} \) million for the Company's shares held by the trust account in connection with the performance-based stock remuneration plan for its directors and executive officers.

## (2) Dividends whose record date falls in FY2022 and the effective date falls in FY2023

Resolution	Class of shares	Source of dividends	Total dividends (millions of yen)	Dividends per share (yen)	Record date	Effective date
Ordinary General Meeting of Shareholders held on June 21, 2023	Common stock	Retained earnings	¥ 3,543	¥ 90.00	March 31, 2023	June 22, 2023

Note: The total amount of dividends includes dividends payment of \( \frac{\pmathbf{4}}{4} \) million for the Company's shares held by the trust account in connection with the performance-based stock remuneration plan for its directors and executive officers.

#### 22. Revenue

#### (1) Breakdown of revenue

The Group's operations principally consist of the Materials and Solutions businesses. Revenue reported by these businesses is presented and is monitored by the Company's Board of Directors regularly to determine the allocation of management resources and to evaluate business performance. Revenue is classified by region based on the location of customers. The relationship between the revenue classified by region and that by reportable segment is described in Note "5. Segment Information".

In the Materials and Solutions business, for the sale of the products, the Group recognizes revenue when control over such products is transferred to the customer or equivalently, upon delivery of the products to the customer, since the legal title to the products and physical possession of the products, and significant risks and rewards of ownership of the products, are transferred to the customer and the Group obtains rights to receive payments from the customer. For the sale of waste gas treatment equipment in the Solutions business, revenues are recognized based on the progress of fulfilment of performance obligations are satisfied over a period of time. The progress of fulfilment of performance obligations is measured using the cost-to-cost method (a method calculating revenue based on the percentage of cumulative actual costs incurred to estimated total costs at the end of the fiscal year) as it is considered that costs incurred properly reflect the progress of fulfilment of performance obligations.

Revenue from the sales of these products is measured at the transaction prices fixed in the contract with the customer. The Group receives a consideration for a transaction within one year after fulfilling the performance obligations, and the consideration does not include a significant financing component.

#### (2) Balance of outstanding contracts

	March 31, 2022	March 31, 2023
	(Million	s of yen)
Trade receivables arising from		
contracts with customers		
Notes and accounts receivable – trade	¥101,503	¥ 96,666
Electronically recorded monetary		
claims-operating	2,084	1,914
Contract liabilities	48	97

In FY2021 and FY2022, the amounts of revenue recognized from performance obligations fulfilled in the past periods were immaterial.

# 23. Selling, General and Administrative Expenses

Breakdown of selling, general and administrative expenses are as follows:

	Years ended March 31,		
	2022	2023	
	(Million	s of yen)	
Transportation and warehousing expenses	¥ 18,954	¥ 23,228	
Employee benefit expenses	9,460	9,521	
Research and development expenses	13,776	14,366	
Other	6,801	9,729	
Total	¥ 48,992	¥ 56,844	

# 24. Other Operating Income and Other Operating Expenses

Breakdown of other operating income are as follows:

	Years ended	d March 31,		
	2022	2023		
	(Millions of yen)			
Real estate rent	¥ 1,134	¥ 1,117		
Technical support fee	605	524		
Insurance claim income	9	514		
Gain on sales of fixed assets	515	22		
Other	751	879		
Total	¥ 3,013	¥ 3,057		

Breakdown of other operating expenses are as follows:

	Years ended March 31,			
	2022			2023
		(Millio	ns of yen)	
Impairment losses	¥	575	¥	1,554
Expenses for removing non-current assets		885		420
Loss on reclassification of foreign currency				
translation adjustments for foreign				
operations		411		_
Other		797		1,103
Total	¥	2,667	¥	3,076

# 25. Finance Income and Finance Expenses

The breakdown of finance income are as follows:

	Years ended March 31,		
	2022	2023	
	(Million	s of yen)	
Interest income			
Financial assets measured at amortized cost	¥ 154	¥ 457	
Dividend income			
Financial assets measured at fair value			
through other comprehensive income (loss)	1,329	1,380	
Foreign exchange gains	448	_	
Other	2	19	
Total	¥ 1,932	¥ 1,856	

Note: 1. Dividend income is mainly from dividends on equity securities continuously held.

2. The gain or loss on the forward exchange contracts that were not designated as hedges were included in foreign exchange gains.

The breakdown of finance expenses are as follows:

	Years ended March 31,		
	2022	2023	
	(Million	s of yen)	
Interest expenses			
Financial liabilities measured at amortized			
cost	¥ 338	¥ 558	
Foreign exchange losses	_	571	
Other	344	5	
Total	¥ 682	¥1,134	

Note: The gain or loss on the forward exchange contracts that were not designated as hedges were included in foreign exchange losses.

# 26. Other Comprehensive Income (Loss)

Breakdown of reclassification adjustments and tax effects per each item of other comprehensive income (loss) is as follows:

	Years ended March 31,		
_	2022	2023	
_	(Million)	s of yen)	
Items that will not be reclassified to profit or loss			
Net changes in financial assets measured at fair			
value through other comprehensive income			
(loss):			
Amount arising during the period	¥ (3,219)	¥ (166)	
Amount of tax effect	1,059	(34)	
Net amount	(2,160)	(199)	
Remeasurement of defined benefit plans:			
Amount arising during the period	1,496	2,258	
Tax effects	(442)	(653)	
Net tax effect	¥ 1,054	¥ 1,604	
Share of other comprehensive income (loss) of			
investments in affiliates and joint ventures			
accounted for using equity method:			
Amount arising during the period	(38)	154	
Total of items that will not be reclassified to profit			
or loss	¥ (1,144)	¥ 1,559	
Items that may be reclassified to profit or loss			
Exchange differences on translation of foreign			
operations:			
Amount arising during the period	8,933	7,147	
Reclassification adjustments	411	_	
Before tax effect	9,344	7,147	
Tax effects	(303)	(259)	
Net tax effect	¥ 9,041	¥ 6,888	
Share of other comprehensive income (loss) of		,	
investments in affiliates and joint ventures			
accounted for using equity method:			
Amount arising during the period	416	1,402	
Total of items that may be reclassified to profit or			
loss	¥ 9,457	¥ 8,290	
Other comprehensive income (loss) after tax			
effect	¥ 8,312	¥ 9,848	
<del>-</del>			

# 27. Earnings (Loss) Per Share

The bases for calculating basic and diluted earnings (loss) per share are as follows. Diluted earnings (loss) per share for the year ended March 31, 2022 are not shown since there are no diluted shares outstanding.

	Years ended March 31,	
	2022	2023
Profit (loss) attributable to owners of parent		
(Millions of yen)	¥ 23,720	¥ 19,392
Adjustment		
(Millions of yen)	_	_
Profit (loss) used to calculate diluted earnings		
(loss) per share	22.720	10.202
(Millions of yen)	23,720	19,392
Average number of shares of common stock		
during the period		
(Thousands of shares)	39,875	39,713
Increase in ordinary shares		
Performance-based stock remuneration		
plan (Thousands of shares)	_	5
Average number of diluted ordinary shares		
during the period		
(Thousands of shares)	39,875	39,718
Basic earnings (loss) per share		
(Yen)	¥ 594.86	¥ 488.29
Diluted earnings (loss) per share (Yen)	_	488.22

Note: The shares of the Company held by the trust account pertaining to the performance-based stock remuneration plan for directors and executive officers of the Company are accounted for as treasury shares. For the purpose of calculating basic earnings (loss) per share and diluted earnings (loss) per share, the Company has deducted the number of such treasury shares in calculating the average number of shares during the period.

## 28. Share-Based Payment

# (1) The details of the plan

The Company introduces a performance-based stock remuneration plan (hereinafter the "Plan") for its directors (excluding outside directors and non-residents of Japan; the same shall apply hereinafter) and executive officers (excluding non-residents of Japan; the same shall apply hereinafter and collectively referred to as the "Director and Other Executives" including directors).

The purpose of the Plan is to raise the Directors and Other Executives' motivation to contribute to improvement of financial performance and enterprise value over the medium to long-term by establishing a clear linkage between their remuneration and the Company's financial results and stock price, not only to allow them to benefit from rise in stock price, but also to make them share the risk of decline in stock price with shareholders in order to achieve the overall group's medium-term business plan.

More specifically, the Company use the mechanism of the Board Benefit Trust in which points (fixed points and performance-based points) measured in accordance with the person's position and the degree of achievement of performance targets based on the Stock Benefit Regulations established by the Company over the period of the overall group's medium-term business plan are granted to the designated beneficiaries. In principle, when Director and Other Executives retires and satisfies the beneficiary requirements provided for by the Stock Benefit Regulations, Director and Other Executives will be granted a certain number of the Company's shares that corresponds to 70% of the points that have been granted to Director and Other Executives through the Trust. For the remaining points, benefits will be granted in cash, instead of the Company's shares, that is equivalent to the current market value of the shares corresponding to the number of the remaining points for the purpose of securing funds to cover the tax liability.

Provision Payments of the Company's share based on the Plan are accounted for as equity-settled share-based payment transactions.

#### (2) Overview of points and weighted average fair value of points

	March 31, 2022	March 31, 2023
Beginning balance (point)	-	-
Increase due to grant of share		
points (point)	-	10,934
Decrease due to exercise of share		
points (point)	-	-
Ending balance (point)	-	10,934
Weighted average fair value of points		
(Yen)	-	5,320

## 28. Share-Based Payment(continued)

### (2) Overview of points and weighted average fair value of points(continued)

- Note: 1. The points fluctuate depending on the degree of achievement of performance targets for the final fiscal year of the overall group's medium-term business plan. For the year ended March 31, 2023, the points were granted as the "performance coefficient" is 100%, because of the expectation of achieving the performance targets in final fiscal year of the overall group's medium-term business plan.
  - 2. The fair value of the points granted is measured based on the stock price on the grant date, because this fair value is similar to the stock price on the grant date. The fair value is not adjusted in consideration of expected dividends and others.

## (3) Share-based payment expense

The expense related to the Plan is ¥ 58 million in the year ended March 31, 2023. The expense is included in "selling, general and administrative expenses" in the consolidated statement of income.

#### 29. Financial Instruments

#### (1) Capital management

The Group aims at achieving a sustainable growth of its businesses by securing financial stability through the strengthening of capital position and reduction of financial risk. To accomplish that, the Group monitors the financial condition using the indices, such as shareholders' equity ratio, the total debt to total assets ratio, and D/E ratio.

	<b>March 31, 2022</b>	March 31, 2023
Shareholders' equity ratio (%)	66.4	69.2
Total debt to total asset ratio (%)	11.5	11.0
D/E ratio (times)	0.17	0.16

Note: Shareholders' equity ratio = Equity attributable to owners of parent/Total assets
Total debt to total assets ratio = Interest-bearing debt/Total assets
D/E ratio = Interest-bearing debt/ Equity attributable to owners of parent

#### (2) Financial risk management

The Group's business activities may be affected by various risks, including market risk, credit risk, and liquidity risk. While recognizing the possibility of occurrence of such risks, the Group makes every possible effort to prevent their occurrence and to manage them if they occur. Furthermore, the Company's Board of Directors implements company-wide measures as appropriate in response to the Company's exposure to various risks.

#### (3) Market risk

# 1) Foreign exchange risk

As the Group operates its business globally, it owns trade receivables and payables denominated in foreign currencies. These trade receivables and payables are exposed to the risk of fluctuations of foreign exchange rates. The Group enters into forward exchange contracts to hedge the risk of the trade receivables and the payables denominated in foreign currencies.

With regard to financial instruments denominated in foreign currencies that the Group owned as of March 31, 2022 and 2023, the table below shows the impact on profit (loss) before income tax in the Group's consolidated statement of income or loss (foreign exchange sensitivity) in case the Japanese yen appreciates by 1.0% against the US dollar and Euro (The sensitivity analysis assumes that all other variables remain unchanged).

	Years ended March 31,				
	2022	2023			
	(Million	(Millions of yen)			
US dollar	¥ (61)	¥ (36)			
Euro	(5)	(6)			

#### 2) Interest rate risk

The Group covers working capital and capital expenditures using its own capital, bonds, and borrowings. As certain interest rates on its borrowings are floating rates, the Group is exposed to the risk of changes in interest rates. The Group enters into interest rate swap contracts to reduce such risk as necessary.

The effect of changes in market interest rates on the Group's operating profit is immaterial.

# (3) Market risk (continued)

## 3) Share price fluctuation risk

As the Group owns shares of business partners for reinforcing business collaboration or capital tie-ups, it is exposed to the risk of market price fluctuations. To reduce such risk, the Group periodically assesses the market value and financial condition of issuers (business partners) and continually reviews the holding purpose by considering its relationships with business partners.

The table below shows the impact on other comprehensive income (loss) (net of tax effects) with regard to the equity financial instruments that the Group owned as of March 31, 2022 and 2023, in case the market price fluctuates by 10% (The analysis assumes that all other variables remain unchanged).

	March 31, 2022	March 31, 2023
	(Millions	of yen)
10% change in market price	¥ 2,492	¥ 2,458

#### 4) Derivative transactions

The Group enters into forward exchange contracts to hedge the risk of fluctuation in foreign exchange rates pertaining to trade receivables and payables denominated in foreign currencies, and interest rate swap contracts to hedge the risk of fluctuation in interest rates related to borrowings. The Finance & Accounting Division, etc. is responsible for managing derivative contracts and report the status of such transactions to directors in charge every month.

#### Transactions for which hedge accounting was applied

There are no derivative transactions as of March 31, 2022 and 2023 for which hedge accounting was applied.

#### (3) Market risk (continued)

### 4) Derivative transactions (continued)

# Transactions for which hedge accounting was not applied

	March 31, 2022		N	March 31, 2023		
	Contract	Beyond 1		Contract	Beyond 1	
	amount	year	Fair value	amount	year	Fair value
			(Million	s of yen)		
Forward exchange contracts						
Selling position	¥16,042	$\Psi$ –	¥(740)	¥ 15,207	¥ -	¥ (209)

#### (4) Credit risk

Credit risk is the risk of incurring losses where an obligor, an issuer of financial assets owned by the Group, fails to honor its obligations. With regard to trade receivables, each business division regularly monitors the condition of major business partners, manages due dates and balances for each business partner, and assesses the credit condition of major business partners every six months. The consolidated subsidiaries also manage their credit risk in accordance with the above-mentioned procedures.

With regard to derivative transactions, the Group judges that credit risk is minimal since the counterparties are financial institutions with high credit ratings.

There is no excessive concentration of the credit risk that requires special management.

The carrying amount of financial assets after deducting allowance for doubtful accounts in the consolidated statement of financial position is the maximum exposure to the credit risk of the Company's financial assets that does not take into account collateral held and other credit enhancements. In addition, the maximum exposure to the credit risk of the debt guarantee is the amount stated in Note "34. Contingencies".

The Group recognizes expected credit losses for trade receivables and other financial assets as allowance for doubtful accounts.

## (4) Credit risk (continued)

As trade receivables do not include significant financial components, the Group always measures allowance for doubtful accounts at an amount equivalent to lifetime expected credit losses. With regard to other financial assets, when credit risk has increased significantly, the Group measures provisions for such financial assets at an amount equivalent to lifetime expected credit losses; when credit risk has not increased significantly, the Group measures provisions for such financial assets at an amount equivalent to the 12-month expected credit losses.

The Group judges whether or not credit risk has increased significantly based on changes in risk of the occurrence of a default. When judging such changes, the Group mainly considers past due information. The Group judges that credit risk has increased when a payment is overdue. However, it judges that credit risk has not increased significantly taking into consideration the reasons for the overdue payment and relevant information on the financial condition of a business partner. In principle, when the number of days past due exceeds one year, the Group judges that a default has occurred.

The Group classifies financial assets as credit-impaired financial assets if a business partner faces serious financial difficulty or there is an increase in possibility that a business partner will go bankrupt or commence debt consolidation proceedings.

With regard to all or part of financial assets, for any non-recoverable amount in the future, the total carrying amount of such financial assets is directly written-off accordingly.

# (4) Credit risk (continued)

The changes in allowance for doubtful accounts are as follows.

FY2021 (April 1, 2021 to March 31, 2022)

	Trade receivables	eivables Other financial assets		
	(financial assets whose allowance for doubtful accounts are always measured at an amount equal to the lifetime expected credit losses)	Financial assets measured at an amount equal to the 12-month expected credit losses	Financial assets measured at an amount equal to the lifetime expected credit losses	Total
		(Millions of ye	en)	
Beginning balance	¥ 8	¥ 62	¥ 0	¥ 70
Increase during the period	4	2	_	6
Utilized	_	(21)	(0)	(21)
Decrease	(3)	(10)	_	(13)
Other (note)	0			0
Ending balance	¥ 9	¥ 33	¥ –	¥ 43

Note: "Other" includes mainly the impact of foreign exchange translation.

FY2022 (April 1, 2022 to March 31, 2023)

	Trade receivables	ade receivables Other financial assets		
	(financial assets whose allowance for doubtful accounts are always measured at an amount equal to the lifetime expected credit losses)	Financial assets measured at an amount equal to the 12-month expected credit losses	Financial assets measured at an amount equal to the lifetime expected credit losses	Total
		(Millions of ye	en)	
Beginning balance	¥ 9	¥ 33	¥ -	¥ 43
Increase during the period	2	2	-	4
Utilized	_	(2)	_	(2)
Decrease	(2)	(27)	_	(30)
Other (note)	0			0
Ending balance	¥ 9	¥ 6	¥ -	¥ 15

Note: "Other" includes mainly the impact of foreign exchange translation.

# (4) Credit risk (continued)

Information on trade receivables and other financial assets past due as of March 31, 2022 and 2023 is as follows:

FY2021(As of March 31, 2022)

	Trade receivables	Other fina		
Number of days past due	(financial assets whose allowance for doubtful accounts are always measured at an amount equal to the lifetime expected credit losses)	Financial assets measured at an amount equal to the 12-month expected credit losses	Financial assets measured at an amount equal to the lifetime expected credit losses	Total
		(Millions of ye	en)	
Not past due	¥ 99,859	¥ 3,428	$\Psi$ —	¥103,287
Past due within				
6 months	3,702	1	_	3,702
Past due over				
6 months within				
12 months	25	_	_	25
Past due over				
12 months	1			1
Total	¥103,587	¥ 3,429	$\Psi$ —	¥107,016

FY2022(As of March 31, 2023)

	Trade receivables	Other final										
Number of days past due	(financial assets whose allowance for doubtful accounts are always measured at an amount equal to the lifetime expected credit losses)	Financial assets measured at an amount equal to the 12-month expected credit losses	Financial assets measured at an amount equal to the lifetime expected credit losses	Total								
		(Millions of yen)										
Not past due	¥ 96,826	¥ 4,845	¥ –	¥101,671								
Past due within 6 months Past due over 6 months within	1,716	-	_	1,716								
0 11101111111 111111111	39			20								
12 months	38	_	_	38								
Past due over	1			1								
12 months				1								
Total	¥ 98,580	¥ 4,845	¥-	¥103,425								

# (5) Liquidity risk

Liquidity risk is the risk that the Group will be unable to perform its repayment obligations for financial liabilities on the due date. Each group company manages liquidity risk by preparing their funding plans in a timely manner.

Contractual maturities of major financial liabilities are as follows: Financial guarantee contracts are not included in the tables below since the Group is obliged when a demand for execution is made.

FY2021 (As of March 31, 2022)

		ntract 10unt		thin 1 ear	y wit	ver 1 ear hin 2 ears	y wi	ears thin 3	Ove yea with yea	rs in 4	ye: with	er 4 ars nin 5 ars		Over 5 years	
					(Millions of yen)										
Non-derivative financial liabilities															
Trade payables	¥ 5	57,616	¥ 5	7,616	¥	_	¥	_	¥	_	¥	_	¥	_	
Short-term borrowings	1	0,657	1	0,657		_		_		_		_		_	
Long-term borrowings	4	11,536	1	2,902	10	,811		6,541	2,	931	8,	350		_	
Lease liabilities		7,484		1,431	1	,710		925		816		602	2,	002	
Total	¥ 11	7,293	¥ 8	2,605	¥12	,521	¥	7,466	¥ 3,	747	¥ 8,	952	¥ 2,	002	
Derivative financial liabilities															
Interest rate derivatives		740		740		_		_		_		_		_	
Total	¥	740	¥	740	¥		¥		¥		¥		¥		

# (5) Liquidity risk (continued)

FY2022 (As of March 31, 2023)

		ntract iount	Within 1 year		wi	Over 1 Over 2 year years within 2 within 3 years years (Millions of yen)		Over 3 years within 4 years		Over 4 years within 5 years		Over 5 years			
Non-derivative financial liabilities															
Trade payables	¥ 5	3,138	¥ 5	3,138	¥	_	¥	_	¥	_	¥	_	¥	_	
Short-term borrowings	1	1,403	1	1,403		_		_		_		_		_	
Long-term borrowings	3	9,508	11,641		7,105		3,198		8,564		9,000		_		
Lease liabilities		6,700	1,467		1,359			1,056		602		563		1,653	
Total	¥ 11	0,749	¥ 7	7,649	¥	8,465	¥	4,254	¥ 9.	,165	¥ 9,	563	¥ 1,	653	
Derivative financial liabilities															
Interest rate derivatives		216		216		_									
Total	¥	216	¥	216	¥	_	¥	_	¥	_	¥	_	¥	_	

#### (6) Fair value of financial instruments

#### 1) Fair value and carrying amount

The carrying amount and fair value of financial assets and liabilities measured at amortized cost are as follows:

Financial assets whose carrying values approximate their fair values are not included in the table below.

	March	31, 2022	March 31, 2023		
	Carrying amount	Fair value	Carrying amount	Fair value	
		(Million	s of yen)		
Financial liabilities measured at amortized cost		•			
Long-term borrowings	¥ 41,536	¥ 41,372	¥ 39,508	¥ 39,263	
Total financial liabilities	¥ 41,536	¥ 41,372	¥ 39,508	¥ 39,263	

#### 2) Calculation methods and valuation techniques of fair value

The fair values of financial assets and liabilities are calculated by the following methods. When estimating fair values of financial instruments, market prices are used when available. The fair value of financial instruments without market prices is estimated by discounting the future cash flows or using other appropriate valuation techniques.

#### Long-term borrowings

The fair value of long-term borrowings is calculated by discounting the total amounts of principal and interest to the present value using the incremental borrowing rate applicable to new borrowings under the same conditions.

#### (6) Fair value of financial instruments (continued)

#### 3) Fair value hierarchy

The table below shows the analysis on financial instruments reported by fair values. Each level is defined as follows:

- Level 1: Fair values measured at quoted prices (unadjusted) in active markets for identical assets or liabilities
- Level 2: Fair values measured using direct or indirect observable inputs other than Level 1
- Level 3: Fair values measured using unobservable inputs

#### FY2021 (As of March 31, 2022)

	Le	vel 1	Level 2	Lev	el 3	T	otal
	(Millions of yen)						
Financial assets measured at fair							
value through profit or loss							
Debt instruments	¥	766	¥ -	¥	_	¥	766
Derivative assets		_	_		_		_
Other		_	52		546		598
Financial assets measured at fair							
value through other							
comprehensive income (loss)							
Equity instruments	3.	5,911	_	3,	444	3	9,355
Other					0		0
Total assets	¥ 3	6,677	¥ 52	¥ 3,	990	¥ 4	0,719
Financial liabilities measured at							
fair value through profit or loss							
Derivative liabilities		_	740		_		740
Total liabilities	¥	_	¥740	¥	_	¥	740

- (6) Fair value of financial instruments (continued)
  - 3) Fair value hierarchy (continued)

FY2022 (As of March 31, 2023)

	Level 1	Level 2	Level 3	Total		
	(Millions of yen)					
Financial assets measured at fair value through profit or loss						
Debt instruments	¥ 1,338	¥ -	¥ -	¥ 1,338		
Derivative assets	_	7	_	7		
Other	_	109	816	925		
Financial assets measured at fair value through other comprehensive income (loss)						
Equity instruments	35,416	_	3,172	38,588		
Other			0	0		
Total assets	¥ 36,753	¥ 116	¥ 3,988	¥ 40,857		
Financial liabilities measured at fair value through profit or loss						
Derivative liabilities	_	216	_	216		
Total liabilities	¥ -	¥ 216	¥ -	¥ 216		

Listed stocks are classified as Level 1 in the fair value hierarchy since their fair values are measured using quoted prices in the stock exchange.

Derivative transactions are classified as Level 2 in the fair value hierarchy since their fair values are measured at assessed value by calculating based on observable inputs, including foreign exchange rates provided by correspondent financial institutions.

Unlisted stocks are classified as Level 3 in the fair value hierarchy since their fair values are measured at the value calculated based on net asset value, etc. The rationality of the measurement is verified by the Accounting Division and approved by the manager of the Division. Significant changes in fair values caused by changes in unobservable inputs are not expected.

In FY2021 and FY2022, there are no significant transfers between Level 1 and Level 2.

## (6) Fair value of financial instruments (continued)

## 3) Fair value hierarchy (continued)

The table below shows the reconciliation from the beginning balance to the ending balance for fair value measurement categorized as Level 3 in the fair value hierarchy.

FY2021 (April 1, 2021 to March 31, 2022)

	Financial assets measured at fair value through other comprehensive income (loss)	Financial assets measured at fair value through profit or loss	Total
		(Millions of yen)	
Beginning balance	¥ 2,871	¥ 841	¥ 3,712
Purchase	833	100	933
Profit (loss)	_	(343)	(343)
Other comprehensive			
income (loss)	(317)	_	(317)
Sale	_	_	_
Other	57	(52)	4
Ending balance	¥ 3,444	¥ 546	¥ 3,990

- (6) Fair value of financial instruments (continued)
  - 3) Fair value hierarchy (continued)

FY2022 (April 1, 2022 to March 31, 2023)

	Financial assets measured at fair value through other comprehensive income (loss)	Financial assets measured at fair value through profit or loss	Total
		(Millions of yen)	
Beginning balance	¥ 3,444	¥ 546	¥ 3,990
Purchase	_	300	300
Profit (loss)	_	(5)	(5)
Other comprehensive			
income (loss)	(251)	_	(251)
Sale	(21)	_	(21)
Other	_	(25)	(25)
Ending balance	¥ 3,172	¥ 816	¥ 3,988

Profit or loss pertaining to the above financial assets is included in "Finance income" and "Finance expenses" in the consolidated statement of income, while other comprehensive income (loss) is included in "Net changes in financial assets measured at fair value through other comprehensive income (loss)" in the consolidated statement of comprehensive income.

#### 30. Leases

The Group, as a lessee leases machinery and equipment for manufacturing facilities, buildings for offices, etc. Certain lease agreements include extension options and termination options. There are no restrictions or covenants imposed by leases.

#### (1) Expenses related to leases

Expenses and cash outflows related to leases are as follows.

	Year ended March 31, 2022	Year ended March 31, 2023			
	(Millions of yen)				
Expenses related to leases					
Interest expense related to lease liabilities	¥ 133	¥ 140			
Expense related to short-term leases	132	159			
Expense related to low-value assets	1,001	988			
Total of cash outflow related to leases	¥ 3,171	¥ 3,396			

Maturity analysis of lease liabilities is described in Note "29. Financial Instruments (5) Liquidity risk".

#### (2) Right-of-use assets

Details of the increase, depreciation and the carrying amount of right-of-use assets are as follows.

	Y	ear ended Mar	ch 31, 2022	2	Y	ear ended Mar	ch 31, 2023	3
	Buildings and structures	Machinery and vehicles	Other	Total	Buildings and structures	Machinery and vehicles	Other	Total
				(Million	is of yen)			
Increase	¥ 195	¥ 713	¥ 60	¥ 968	¥ 711	¥ 271	¥ 28	¥ 1,011
Depreciation	886	1,077	100	2,063	922	1,256	109	2,288
	V	ear ended Mar	ch 31, 2022	2	V	ear ended Mar	ch 31, 2023	}
			011 0 1 , 2 0 2 2	<u> </u>		eur enaea mar	cii 01, 2020	<u> </u>
	Buildings and	Machinery and vehicles	Other	Total	Buildings and structures	Machinery and vehicles	Other	
	Buildings	Machinery and	,	Total	Buildings and structures	Machinery and	,	Total
Carrying	Buildings and	Machinery and	,	Total	Buildings and	Machinery and	,	

## 31. Significant Subsidiaries

The Company's significant subsidiaries are described in the table below.

Company name (Subsidiaries)	Share capital	Location	Principal business (Note 1)	Ratio of voting rights (Note2)
				(%)
Nippoh Chemicals Co., Ltd.	¥517 million	Chuo-ku, Tokyo	Solutions	84.7
Nisshoku Butsuryu Co., Ltd.	¥100 million	Chuo-ku,	Materials	100.0
		Osaka	Solutions	
Tokyo Fine Chemical Co., Ltd.	¥80 million	Minato-ku, Tokyo	Solutions	89.5
Chugoku Kako Co., Ltd.	¥75 million	Kurashiki-shi, Okayama	Solutions	93.3
Nippon Shokubai Trading Co., Ltd.	¥40 million	Chuo-ku,	Materials	100.0
		Tokyo	Solutions	
Nisshoku Techno Fine Chemical Co., Ltd.	¥90 million	Ichikawa-shi, Chiba	Solutions	96.8
Nihon Nyukazai Co., Ltd.	¥1,000 million	Chuo-ku, Tokyo	Solutions	100.0
Nihon Polymer Industries Co., Ltd.	¥100 million	Himeji-shi, Hyogo	Solutions	60.0
Nippon Shokubai America Industries, Inc.	\$100,000 thousand	Texas, USA	Materials Solutions	100.0
Nippon Shokubai (Asia) Co., Ltd.	\$4,175 thousand	Singapore	Materials	100.0
PT. Nippon Shokubai Indonesia	\$120,000 thousand	Banten, Indonesia	Materials	99.9
Nippon Shokubai Europe N.V.	€243,000 thousand	Zwijndrecht, Belgium	Materials	100.0
Singapore Acrylic Pte Ltd.	\$27,007 thousand	Singapore	Materials	79.4
Nisshoku Chemical Industry (Zhang Jia Gang) Co., Ltd.	\$52,820 thousand	Jiangsu, China	Materials	100.0
SINO-JAPAN CHEMICAL CO.,	NT\$144,732	Taipei,	Solutions	52.0
LTD.	thousand	Taiwan		(3.4)

#### Other 11 subsidiaries

Note: 1. The column "Principal business" indicates the segment stated in Note "5. Segment Information."

2. A number in the parenthesis represents the ratio of indirect voting rights, which is a part of the ratio of voting rights.

#### 32. Related Party Transactions

#### (1) Transactions with related parties

Significant transactions between the Group and related parties are as follows:

FY2021 (April 1, 2021 to March 31, 2022)

Туре	Name of the related party	Relationship with related party	Details of transactions	Transaction amounts	Ending balance
				(Millions	of yen)
Affiliate	Umicore Shokubai	Supply of finished goods (catalysts	Sales of catalysts for automobiles	¥ 28,041	¥ 9,582
	Japan Co., Ltd.	for automobiles) and incidental transactions	Purchase of raw materials	28,085	6,901

Note: 1. Transaction amounts do not include consumption taxes, but the ending balance includes consumption taxes.

2. Transaction conditions and policies on transaction conditions, etc.

Sales of products and purchase of raw materials are determined after price negotiations in consideration of market prices and costs.

FY2022 (April 1, 2022 to March 31, 2023)

Туре	Name of the related party	Relationship with related party	Details of transactions	Transaction amounts	Ending balance
				(Millions	of yen)
Affiliate	Umicore Shokubai	Supply of finished goods (catalysts	Sales of catalysts for automobiles	¥ 28,177	¥10,187
	Japan Co., Ltd.	for automobiles) and incidental transactions	Purchase of raw materials	27,261	6,986

Note: 1. Transaction amounts do not include consumption taxes, but the ending balance includes consumption taxes.

2. Transaction conditions and policies on transaction conditions, etc.

Sales of products and purchase of raw materials are determined after price negotiations in consideration of market prices and costs.

## 32. Related Party (continued)

#### (2) Remuneration for key management personnel

Remuneration for key management personnel is as follows:

	Years ended March 31,				
_	2022	2023			
_	(Millions of yen)				
Remuneration and bonuses	¥ 433	¥ 462			
Share-based payment	_	39			

#### 33. Commitments

Commitment regarding the acquisition of property, plant and equipment is as follows:

	March 31, 2022	March 31, 2023
	(Millions	s of yen)
Acquisition of property, plant and equipment	¥ 4,172	¥ 909

#### 34. Contingencies

The Group guarantees bonds issued by a company other than consolidated subsidiaries as follows:

	<b>March 31, 2022</b>	March 31, 2023
	(Millions of yen)	
American Acryl L.P.	¥ 1,485	¥ 1,620
	(742)	(810)

Note: The amounts in the parentheses indicate the debt guarantee balance guaranteed by Arkema Delaware Inc.

#### Translation

Following is an English translation of the Independent Auditor's Report field under the Financial Instruments and Exchange Act of Japan. This report is presented merely as supplemental information.

There are differences between an audit of internal control over financial reporting under the Financial Instruments and Exchange Act and an audit of internal control over financial reporting under the attestation standards established by the American Institute of Certified Public Accountants.

In an audit of internal control over financial reporting under the Financial Instruments and Exchange Act, the auditors express an opinion on management's report on internal control over financial reporting, and do not express an opinion on the Company's internal control over financial reporting taken as a whole.

# Independent Auditor's Report (field under the Financial Instruments and Exchange Act of Japan)

June 21, 2023

The Board of Directors Nippon Shokubai Co., Ltd.

Ernst & Young ShinNihon LLC Osaka, Japan

Designated and Engagement Partner
Certified Public Accountant
Takashi Umehara

Designated and Engagement Partner
Certified Public Accountant
Kohei Koyama

<Financial statements audit>

#### **Opinion**

Pursuant to Article 193-2, Section 1 of the Financial Instruments and Exchange Act of Japan, we have audited the accompanying consolidated financial statements, which comprise the consolidated statement of financial position, the consolidated statement of income, the consolidated statement of comprehensive income, the consolidated statement of changes in equity, the consolidated statement of cash flows and the notes to the consolidated financial statements of Nippon Shokubai Co., Ltd. and its consolidated subsidiaries (the Group) applicable to the fiscal year from April 1, 2022 to March 31, 2023. 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, 2023, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRSs) under Article 93 of the Regulation on Terminology, Forms, and Preparation Methods of Consolidated Financial Statements.

#### **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.

Impairment of non-financial assets: (1) NIPPON SHOKUBAI EUROPE N.V.

#### Description of Key Audit Matter

The Company recognized property, plant and equipment of ¥24,103 million held by **NIPPON** SHOKUBAI **EUROPE** (hereinafter "NSE"), a consolidated subsidiary that produces and sells superabsorbent polymers in Europe, in the consolidated statement of financial position as of March 31, 2023. As described in "4. Significant Accounting Estimates and Judgements (1) Impairment of non-financial assets NIPPON SHOKUBAI EUROPE N.V." in the notes to consolidated financial statements, the business environment for superabsorbent polymers in Europe, where NSE is located, continues to be highly competitive as the prices of raw materials and fuel as well as inflationary pressures remain elevated under a backdrop of an escalation in the conflict in Ukraine. However, sales prices are increasing along with rises in prices of raw materials and as a result of products market conditions, and

#### Auditor's Response

The audit procedures we performed to assess management's determination as to whether there was any indication of impairment of property, plant and equipment held by NSE included the following, among others:

- We involved the component auditor to evaluate the result of the impairment review performed by NSE's management.
- To evaluate the effectiveness of the estimation process by management, we compared the changes in sales volumes and sales prices used in prior year estimates with the actual results.
- We evaluated the consistency between NSE's latest business plans used by its management during the impairment review and the overall group's mediumterm business plan approved by the Board of Directors and the latest financial forecasts approved by NSE's management,

the Company anticipates that the balance between supply and demand for superabsorbent polymers will be tight over the medium-to long-term.

Under these circumstances, the Company performed an impairment review based on NSE's latest business plans, market interest rates, and other factors, to determine whether there is any indication that the property, plant and equipment held by NSE may be impaired. As a result of the impairment review, the Company determined that there was no indication of impairment.

In the course of the impairment review, the Company considered based primarily on NSE's latest business plans and potential market interest rates etc. whether significant changes may occur in the near future that could be an indication of impairment.

significant assumptions performing the impairment review were future sales volumes and sales prices underlying the business plan, and the discount rate calculated based on market interest rates and other factors. Future sales volumes and sales prices were determined based on underlying factors such as information received from customers. the forecast for the balance between supply and demand for superabsorbent polymers, and the future market outlook. Since the business environment in Europe for superabsorbent continue to polymers can be highly these assumptions competitive. involve uncertainties. In addition, the determination of the discount rate is complex as it requires highly specialized expertise. Furthermore, the carrying amount of the property, plant and equipment held by NSE is quantitatively significant to the Company's consolidated statements of financial position.

Therefore, we determined this issue to be a key audit matter.

etc.

- We inquired of the Company's management for the rationale of the significant assumptions for NSE's latest business plan such as the future sales volumes and sales prices, and evaluated whether the underlying factors such as information received from customers, the forecast for the supply-demand balance for superabsorbent polymers, and the future market outlook were consistent with available external data.
- We involved valuation specialists of our network firm to assist in evaluating the discount rate that NSE's management used in the impairment review.

Impairment of non-financial assets: (2) Printing materials

#### Description of Key Audit Matter

The Company recognized property, plant and equipment, etc., of ¥1,788 million related to certain products for printing materials belonging to the Solutions segment in the consolidated statement of financial position as of March 31, 2023. As described in "4. Significant Accounting Estimates Judgements (1) Impairment of non-financial assets 2) Printing materials" in the notes to financial consolidated statements. the Company determined that there was an indication of impairment due to a decline in profitability caused by changes in the business environment and performed an impairment test of the corresponding cash-generating unit of the asset above.

The Company measured the recoverable amount of the cash-generating unit at value in use based on its business plan and did not recognize an impairment loss because the recoverable amount determined by discounting future cash flows exceeded the carrying amount.

Value in use was estimated as the discounted present value of future cash flows based on the latest business plan. The significant assumptions underlying these estimates were future sales volumes and sales prices.

The carrying amount of the property, plant and equipment, etc. of the cash-generating unit is quantitatively significant to the Company's consolidated statements of financial position, and the future sales volumes and sales prices, which are significant assumptions underlying the estimates used in the impairment test, involve uncertainties since they determined based on factors including information received from customers and future market outlook, etc. In addition, the application of valuation model in impairment tests also requires expertise.

Therefore, we determined this issue to be a key

#### Auditor's Response

The audit procedures we performed to assess the impairment test of the property, plant and equipment, etc. of the cash-generating unit included the following, among others:

- We compared the period covered for future cash flow forecasts with the remaining useful lives of the assets of the cashgenerating unit.
- To evaluate the effectiveness of the management's estimation process for future cash flows, we compared business plan used in prior year estimates with actual results.
- We inquired of management, including the status of negotiations with customers, for the rationale of the significant assumptions for the impairment test such as the future sales volumes and sales prices, and evaluated whether the underlying factors such as information received from customers and the future market outlook were consistent with available external data.
- We evaluated the consistency between the business plan used by management in performing the impairment test and the latest financial forecast approved by the Board of Directors.
- We involved valuation specialists of our network firm to assist in evaluating the valuation model applied by management.

audit matter.	
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#### **Other Information**

The other information comprises the information included in Yukashoken Hokokusho that contains audited consolidated financial statements but does not include the consolidated financial statements, the financial statement and our auditor's report thereon. Management is responsible for preparation and disclosure of the other information. The Corporate Auditor and the Board of Corporate Auditors are 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 Corporate Auditor and the Board of Corporate Auditors for the Consolidated Financial Statements

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

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern and disclosing, as required by IFRSs, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

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

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

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

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

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion.
- Consider internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances for our risk assessments, while the purpose of the audit of the consolidated financial statements is not expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation in accordance with IFRSs.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

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

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

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

<Internal control audit>

#### **Opinion**

Pursuant to Article 193-2, Section 2 of the Financial Instruments and Exchange Act of Japan, we have audited the accompanying Management's Report on Internal Control Over Financial Reporting for the financial statement as at March 31, 2023 of Nippon Shokubai Co., Ltd. and its consolidated subsidiaries ("Management's Report").

In our opinion, Management's Report referred to above, which represents that the internal control over financial reporting as at March 31, 2023 of Nippon Shokubai Co., Ltd. and its consolidated subsidiaries (the Group) is effective, presents fairly, in all material respects, the result of management's assessment of internal control over financial reporting in accordance with standards for assessment of internal control over financial reporting generally accepted in Japan.

#### **Basis for Opinion**

We conducted our internal control audit in accordance with auditing standards on internal control over financial reporting generally accepted in Japan. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of Internal Control section of our report. We are independent of the Group in accordance with the ethical requirements that are relevant to our audit of the 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.

## Responsibilities of Management, the Corporate Auditor and the Board of Corporate Auditors for Management's Report

Management is responsible for designing and operating internal control over financial reporting, and for the preparation and fair presentation of Management's Report in accordance with standards for assessment of internal control over financial reporting generally accepted in Japan.

The Corporate Auditor and the Board of Corporate Auditors are responsible for monitoring and verifying the design and operation of internal control over financial reporting.

Internal control over financial reporting may not prevent or detect misstatements completely.

#### **Auditor's Responsibilities for the Audit of Internal Control**

Our objectives are to obtain reasonable assurance about whether Management's Report is free from material misstatement, and to issue an auditor's report that includes our opinion from an independent standpoint.

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

• Perform audit procedures to obtain audit evidence relating to the result of management's assessment of internal control over financial reporting in Management's Report. The

design and performance of audit procedures for internal control audit is based on our judgement in consideration of the materiality of the effect on the reliability of financial reporting.

- Consider the overall presentation of Management's Report with regards to the scope, procedures, and result of the assessment of internal control over financial reporting including descriptions by management.
- Obtain sufficient appropriate audit evidence regarding the result of management's assessment of internal control over financial reporting in Management's Report. We are responsible for the direction, supervision, and performance of the audit of Management's Report. We remain solely responsible for our audit opinion.

We communicate with the Corporate Auditor and the Board of Corporate Auditors regarding, among other matters, the planned scope and timing of the internal control audit, the results of the internal control audit, any significant deficiencies in internal control that we identify, and the results of corrective measures for such significant deficiencies.

We also provide the Corporate Auditor and the Board of Corporate Auditors with a statement that we have complied with the ethical requirements regarding independence that are relevant to our audit of internal control 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.

#### 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.

#### Notes:

- 1. The above is in the custody of the Company—the submitter of this Yukashoken Hokokusho.
- 2. The XBRL data is not included in the scope of Audit.
- 3. This is an English translation of the Independent Auditor's Report as required by the Financial Instruments and Exchange Act of Japan for the convenience of the reader.