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Chugai Finance Report

(An Excerpt of Securities Report 2021)

Fiscal year ended December 31, 2021

CHUGAI PHARMACEUTICAL CO., LTD.

※This document reflects the corrections made in the amended version of Securities Report submitted on 10 March 2023.

Consolidated Financial Statements

1. Consolidated income statement and consolidated statement of comprehensive income

(1) Consolidated income statement in millions of yen

	Year ended December 31	
	2021	2020
Revenues	999,759	786,946
Sales (Notes 2 and 3)	802,836	633,314
Royalties and other operating income (Notes 2 and 3)	196,922	153,631
Cost of sales	(338,147)	(273,465)
Gross profit	661,612	513,481
Marketing and distribution	(76,592)	(72,585)
Research and development	(137,299)	(117,850)
General and administration	(25,824)	(21,816)
Operating profit	421,897	301,230
Financing costs (Note 4)	(48)	(62)
Other financial income (expense) (Note 4)	76	(1,477)
Other expense (Note 5)	(2,540)	(1,504)
Profit before taxes	419,385	298,188
Income taxes (Note 6)	(116,390)	(83,455)
Net income	302,995	214,733
Attributable to:		
Chugai shareholders (Note 21)	302,995	214,733
Earnings per share (Note 25)		
Basic (yen)	184.29	130.66
Diluted (yen)	184.17	130.53

(2) Consolidated statement of comprehensive income in millions of yen

	Year ended December 31	
	2021	2020
Net income recognized in income statement	302,995	214,733
Other comprehensive income		
Remeasurements of defined benefit plans (Notes 6 and 21)	583	3,630
Financial assets measured at fair value through OCI (Notes 6 and 21)	(291)	(22)
Items that will never be reclassified to the income statement	292	3,608
Financial assets measured at fair value through OCI (Notes 6 and 21)	3	12
Cash flow hedges (Notes 6 and 21)	(292)	(3,072)
Currency translation of foreign operations (Notes 6 and 21)	3,022	1,467
Items that are or may be reclassified to the income statement	2,733	(1,593)
Other comprehensive income, net of tax (Note 6)	3,025	2,015
Total comprehensive income	306,020	216,748
Attributable to:		
Chugai shareholders (Note 21)	306,020	216,748

2. Consolidated balance sheet in millions of yen

	December 31, 2021	December 31, 2020
Assets		
Non-current assets:		
Property, plant and equipment (Note 7)	338,841	289,218
Right-of-use assets (Note 8)	13,266	8,272
Intangible assets (Note 9)	21,974	23,880
Financial non-current assets (Note 10)	2,393	2,841
Deferred tax assets (Note 6)	56,287	47,934
Defined benefit plan assets (Note 23)	1,327	492
Other non-current assets (Note 11)	40,944	27,954
Total non-current assets	475,033	400,592
Current assets:		
Inventories (Note 12)	208,838	183,893
Accounts receivable (Note 13)	355,081	253,342
Current income tax assets (Note 6)	928	12
Marketable securities (Note 14)	204,217	166,287
Cash and cash equivalents (Note 15)	267,753	212,333
Other current assets (Note 16)	26,844	19,039
Total current assets	1,063,661	834,906
Total assets	1,538,694	1,235,498
Liabilities		
Non-current liabilities:		
Deferred tax liabilities (Note 6)	(7,614)	(9,166)
Defined benefit plan liabilities (Note 23)	(2,945)	(2,282)
Long-term provisions (Note 17)	(2,101)	(2,142)
Other non-current liabilities (Note 18)	(10,595)	(5,835)
Total non-current liabilities	(23,255)	(19,425)
Current liabilities:		
Current income tax liabilities (Note 6)	(86,312)	(63,171)
Short-term provisions (Note 17)	(2,695)	(358)
Accounts payable (Note 19)	(152,266)	(100,396)
Other current liabilities (Note 20)	(86,149)	(72,146)
Total current liabilities	(327,422)	(236,070)
Total liabilities	(350,677)	(255,495)
Total net assets	1,188,017	980,003
Equity:		
Capital and reserves attributable to Chugai shareholders (Note 21)	1,188,017	980,003
Total equity	1,188,017	980,003
Total liabilities and equity	1,538,694	1,235,498

3. Consolidated statement of cash flows in millions of yen

	Year ended December 31	
	2021	2020
Cash flows from operating activities		
Cash generated from operations (Note 26)	470,367	340,228
(Increase) decrease in working capital	(83,122)	(64,421)
Payments made for defined benefit plans	(3,665)	(4,656)
Utilization of provisions	(656)	(26)
Other operating cash flows	776	694
Cash flows from operating activities, before income taxes paid	383,700	271,820
Income taxes paid	(104,074)	(66,785)
Total cash flows from operating activities	279,626	205,035
Cash flows from investing activities		
Purchase of property, plant and equipment	(65,969)	(57,040)
Purchase of intangible assets	(6,897)	(4,349)
Disposal of property, plant and equipment	1,042	(22)
Interest and dividends received (Note 26)	133	100
Purchases of marketable securities	(362,761)	(248,143)
Sales of marketable securities	325,000	211,000
Purchases of investment securities	(9,503)	(177)
Sales of investment securities	28	319
Total cash flows from investing activities	(118,927)	(98,312)
Cash flows from financing activities		
Interest paid	(48)	(34)
Lease liabilities paid	(9,031)	(8,432)
Dividends paid to Chugai shareholders	(98,644)	(91,442)
Exercises as part of equity compensation plans (Note 24)	322	440
(Increase) decrease in own equity instruments	(8)	(30)
Total cash flows from financing activities	(107,408)	(99,497)
Net effect of currency translation on cash and cash equivalents	2,128	1,166
Increase (decrease) in cash and cash equivalents	55,419	8,393
Cash and cash equivalents at January 1	212,333	203,941
Cash and cash equivalents at December 31 (Note 15)	267,753	212,333

4. Consolidated statement of changes in equity in millions of yen

	Attributable to Chugai shareholders					Total equity
	Share capital	Capital surplus	Retained earnings	Other reserves	Subtotal	
Year ended December 31, 2020						
At January 1, 2020	73,016	67,037	722,076	(8,143)	853,985	853,985
Net income	-	-	214,733	-	214,733	214,733
Financial assets measured at fair value through OCI (Notes 6 and 21)	-	-	-	(9)	(9)	(9)
Cash flow hedges (Notes 6 and 21)	-	-	-	(3,072)	(3,072)	(3,072)
Currency translation of foreign operations (Notes 6, 21)	-	-	-	1,467	1,467	1,467
Remeasurements of defined benefit plans (Notes 6 and 21)	-	-	3,630	-	3,630	3,630
Total comprehensive income	-	-	218,363	(1,615)	216,748	216,748
Dividends (Note 21)	-	-	(91,467)	-	(91,467)	(91,467)
Equity compensation plans (Note 21)	186	(774)	-	-	(588)	(588)
Own equity instruments (Note 21)	-	1,324	-	-	1,324	1,324
Transfer from other reserves to retained earnings	-	-	121	(121)	-	-
At December 31, 2020	73,202	67,586	849,093	(9,879)	980,003	980,003
Year ended December 31, 2021						
At January 1, 2021	73,202	67,586	849,093	(9,879)	980,003	980,003
Net income	-	-	302,995	-	302,995	302,995
Financial assets measured at fair value through OCI (Notes 6 and 21)	-	-	-	(288)	(288)	(288)
Cash flow hedges (Notes 6 and 21)	-	-	-	(292)	(292)	(292)
Currency translation of foreign operations (Notes 6, 21)	-	-	-	3,022	3,022	3,022
Remeasurements of defined benefit plans (Notes 6 and 21)	-	-	583	-	583	583
Total comprehensive income	-	-	303,578	2,442	306,020	306,020
Dividends (Note 21)	-	-	(98,642)	-	(98,642)	(98,642)
Equity compensation plans (Note 21)	-	(27)	-	-	(27)	(27)
Own equity instruments (Note 21)	-	664	-	-	664	664
Transfer from other reserves to retained earnings	-	-	21	(21)	-	-
At December 31, 2021	73,202	68,223	1,054,050	(7,457)	1,188,017	1,188,017

Notes to Consolidated Financial Statements

1. General accounting principles and significant accounting policies

(1) Basis of preparation of the consolidated financial statements

These financial statements are the annual consolidated financial statements of Chugai Pharmaceutical Co., Ltd., (“Chugai”) a company registered in Japan, and its subsidiaries (“the Group”). The common stock of Chugai is publicly traded and is listed on the Tokyo Stock Exchange under the stock code “TSE: 4519”. The consolidated financial statements were approved by Osamu Okuda, Representative Director, President & CEO, and Toshiaki Itagaki, Director, Executive Vice President & CFO on March 29, 2022.

Roche Holding Ltd. is a public company registered in Switzerland and the parent company of the Roche Group, which discloses its results in accordance with International Financial Reporting Standards (“IFRS”). The shareholding percentage of Roche Holding Ltd. in Chugai is 59.89% (61.16% of the total number of shares issued excluding own equity instruments). The Group became a principal member of the Roche Group after entering into a strategic alliance in October 2002.

The Group meets all of the requirements for a “Specified Company under Designated International Financial Reporting Standards” as stipulated under Article 1-2 of the “Regulations Concerning Terminology, Forms, and Preparation Methods of Consolidated Financial Statements” (Ministry of Finance of Japan Regulation No. 28, 1976). Hence, in accordance with Article 93 of the Regulation, the consolidated financial statements have been prepared in accordance with IFRS.

The consolidated financial statements are presented in Japanese yen, which is Chugai’s functional currency, and amounts are rounded to the nearest ¥1 million. As a result, the totals shown in the consolidated financial statements do not necessarily agree with the sum of the individual amounts. They have been prepared using the historical cost convention except for items that are required to be accounted for at fair value.

(2) Key accounting judgments, estimates and assumptions

The preparation of the consolidated financial statements requires management to make judgments, estimates, and assumptions that affect the reported amounts of revenues, expenses, assets, liabilities, and contingent amounts. Actual outcomes could differ from those management estimates. The estimates and underlying assumptions are reviewed on an on-going basis and are based on historical experience and various other factors. Revisions to estimates are recognized in the period in which the estimate is revised.

The judgments, estimates, and assumptions that have a material impact on the amounts recognized in the consolidated financial statements of the Group are principally the same as the prior year with no significant effects from the COVID-19 pandemic. However, there is a possibility that future developments for the COVID-19 pandemic could mean that it becomes a significant risk that could cause material adjustments to the carrying amounts of assets and liabilities in future reporting periods due to the uncertainty regarding future changes.

The following are considered to be the key accounting judgments, estimates and assumptions made in the preparation of the consolidated financial statements and are believed to be appropriate based upon currently available information.

Revenue.

Sales are recorded net of allowances for rebates, cash discounts and product returns. The estimates of rebates payable are recorded as current liabilities. The Group makes accruals for expected sales rebates based on analyses of existing contractual or legislatively-mandated obligations, historical trends and the Group’s experience. As these deductions are based on management estimates, they may be subject to change as better information becomes available. Such changes that arise could impact the accruals recognized in the balance sheet in future periods and consequently the level of sales recognized in the income statement in future periods. Variable consideration is only recognized when it is highly probable that there will be no significant reversal.

Out-licensing agreements may be entered into with no further obligation or may include commitments to conduct research, late-stage development, regulatory approval, co-marketing or manufacturing. These may be settled by a combination of upfront payments, milestone payments, and reimbursements for services provided. Whether to consider these commitments as a single performance obligation or separate ones, or even being in scope of IFRS 15 'Revenues from Contracts with Customers', is not straightforward and requires some judgment. Depending on the conclusion, this may result in all revenue being calculated at inception and either being recognized at once or spread over the term of a longer performance obligation. The consideration received may include a variable amount. The Group recognizes variable consideration only when it is highly probable that there will be no significant reversal.

As a practical expedient, the Group does not adjust the promised amount of consideration for the effects of a significant financing component, if the group expects, at contract inception, that the period between when the group transfers a promised good or service to a customer and when the customer pays for that good or service will be one year or less.

Impairment. Intangible assets not yet available for use are reviewed annually for impairment. Property, plant and equipment, right-of-use assets and intangible assets in use are assessed for impairment when there is a triggering event that provides evidence that an asset may be impaired. To assess whether any impairment exists estimates of expected future cash flows are used. Actual outcomes could vary significantly from such estimates of discounted future cash flows. Factors such as changes in discount rates, the planned use of buildings, machinery or equipment, closure of facilities, the presence or absence of competition, technical obsolescence and lower than anticipated product sales could lead to shorter useful lives or impairment.

Post-employment benefits. The Group operates a number of defined benefit plans and the fair values of the recognized plan assets and liabilities are based upon statistical and actuarial calculations. Key estimates are required for the measurement of the net defined benefit obligation, which is particularly sensitive to changes in the discount rate and expected mortality. The actuarial assumptions used for those estimates may differ materially from actual results due to changes in market and economic conditions, longer or shorter life spans of participants, and other changes in the factors being assessed. These differences could impact on the defined benefit plan assets or liabilities recognized in the balance sheet in future periods.

Legal. The Group provides for anticipated legal settlement costs when there is a probable outflow of resources that can be reliably estimated. Where no reliable estimate can be made, no provision is recorded and contingent liabilities are disclosed where material. The status of significant legal cases is included as Additional Information. These estimates consider the specific circumstances of each legal case and relevant legal advice, and are inherently uncertain due to the highly complex nature of legal cases. The estimates could change substantially over time as new facts emerge and each legal case progresses.

Environmental. The Group provides for anticipated environmental remediation costs when there is a probable outflow of resources that can be reasonably estimated. Environmental provisions consist primarily of costs to fully clean and refurbish contaminated sites, including landfills, and to treat and contain contamination at certain other sites. These estimates are inherently judgmental due to uncertainties related to the detection of previously unknown contaminated sites, the method and extent of remediation, the percentage of the problematic materials attributable to the Group at the remediation sites, and the financial capabilities of the other potentially responsible parties. The estimates could change substantially over time as new facts emerge and each environmental remediation progresses.

Income taxes. The uncertainty of estimates significantly affects the measurement of current and deferred tax assets and liabilities. Some of these estimates are based on interpretations of existing tax laws or regulations. Where tax positions are uncertain, accruals are recorded within income tax liabilities for management's best estimate of the ultimate liability that is expected to arise based on the specific circumstances and the Group's historical experience. Factors that may have an impact on the measurement of current and deferred taxes include changes in tax laws, regulations or rates, changing interpretations of existing tax laws or regulations, future levels of research and development spending and changes in pre-tax earnings.

Leases. Where the Group is the lessee, key judgments include assessing whether arrangements contain a lease and determining the lease term. To assess whether a contract contains a lease requires judgment about whether it depends on a specified asset, whether the Group obtains substantially all the economic benefits from the use of that asset, and whether the Group has a right to direct the use of the asset. In order to determine the lease term judgment is required as extension and termination options have to be assessed along with all facts and circumstances that may create an economic incentive to exercise an extension option, or not to exercise a termination option. Estimates include calculating the discount rate which is based on the incremental borrowing rate.

(3) Accounting policies

Consolidation policy

Subsidiaries are all companies over which the Group has control. Chugai controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Companies acquired during the year are consolidated from the date on which control is transferred to the Group, and subsidiaries to be divested are included up to the date on which control passes from the Group.

Inter-company balances, transactions and resulting unrealized income are eliminated in full. Changes in ownership interests in subsidiaries are accounted for as equity transactions if they occur after control has already been obtained and if they do not result in a loss of control.

Associates are companies over which the Group exercises, or has the power to exercise, significant influence, but which it does not control and they are accounted for using the equity method.

Foreign currency translation

Most foreign subsidiaries of the Group use their local currency as their functional currency. Certain foreign subsidiaries use other currencies (such as the euro) as their functional currency where this is the currency of the primary economic environment in which the entity operates. Local transactions in other currencies are initially reported using the exchange rate at the date of the transaction. Gains and losses from the settlement of such transactions and gains and losses on translation of monetary assets and liabilities denominated in other currencies are included in income, except when they are qualifying cash flow hedges. In such cases the gains and losses are deferred into other comprehensive income.

Upon consolidation, assets and liabilities of foreign subsidiaries using functional currencies other than Japanese yen are translated into Japanese yen using year-end rates of exchange. The income statement and statement of cash flows are translated at the average rates of exchange for the year. Translation differences due to the changes in exchange rates between the beginning and the end of the year and the difference between net income translated at the average and year-end exchange rates are taken directly to other comprehensive income.

Revenue

Sales. Revenue from the sale of goods supplied is recorded as ‘Sales’.

Sales are recognized when a promise in a customer contract (performance obligation) has been satisfied by transferring control over the promised goods to the customer. Control over a promised good refers to the ability to direct the use of, and obtain substantially all of the remaining benefits from, those goods. Control is usually transferred upon shipment or delivery to or upon receipt of goods by the customer, in accordance with the delivery and acceptance terms agreed with the customers. The Group generally receives payment from customers within four months from the delivery of goods to the customer. There is no significant financing component. The amount of sales to be recognized (transaction price) is based on the consideration the Group expects to receive in exchange for its goods, excluding amounts collected on behalf of third parties such as consumption tax or other taxes directly linked to sales. The Group recognizes deferred income (contract liability) if consideration has been received (or has become receivable) before the Group transfers the promised goods to the customer.

Royalty and other operating income. ‘Royalty and other operating income’ includes royalty income, income from out-licensing agreements and income from disposal of products and other items.

Revenue for a sales-based or usage-based royalty promised in exchange for a license of intellectual property is recognized when the subsequent sale or usage occurs.

Income from out-licensing agreements typically arises from the receipt of upfront, milestone and other similar payments from third parties for granting a license to product or technology related intellectual property (IP). Out-licensing agreements may be entered into with no further obligation or may include commitments to conduct research, late-stage development, regulatory approval, co-marketing or manufacturing. Licenses granted are usually rights to use IP and are generally unique. Therefore, the basis of allocating revenue to performance obligations makes use of the residual approach. Upfront payments and other licensing fees are usually recognized upon granting the license unless some of the income shall be deferred for other performance obligations using the residual approach. Such deferred income is released and recognized as revenue when other performance obligations are satisfied. Milestone income is recognized at the point in time when it is highly probable that the respective milestone event criteria is achieved, and the risk of revenue reversal is considered remote. The Group generally receives payment from customers within four months from the time when performance obligations are satisfied. There is no significant financing component.

Payments received for the disposal of product and similar rights are recognized as revenue because the performance obligations are satisfied upon transfer of control over such rights. If there are performance obligations remaining after the disposal, the corresponding portion of transaction price is deferred based on the residual approach and recognized as revenue when the performance obligations are satisfied. The Group generally receives payment from customers within four months from the time when performance obligations are satisfied. There is no significant financing component.

Income from profit-sharing arrangements with collaboration partners is recognized when underlying sales and cost of sales are recorded by the collaboration partners. The Group generally receives payment from customers within four months from the time when performance obligations are satisfied. There is no significant financing component.

Cost of sales

Cost of sales includes the corresponding direct production costs and related production overheads of goods sold and services rendered. Royalties, alliance and collaboration expenses, including all collaboration profit-sharing arrangements are also reported as part of cost of sales. Start-up costs between validation and the achievement of normal production capacity are expensed as incurred.

Research and development

Internal research and development activities are expensed as incurred for the following:

- Internal research costs incurred for the purpose of gaining new scientific or technical knowledge and understanding.
- Internal development costs incurred for the application of research findings or other knowledge to plan and develop new products for commercial production. The development projects undertaken by the Group are subject to technical, regulatory and other uncertainties, such that, in the opinion of management, the criteria for capitalization as intangible assets are not met prior to obtaining marketing approval by the regulatory authorities in major markets.
- Post-marketing studies after regulatory approval, such as phase IV costs in the pharmaceuticals business, generally involve safety surveillance and on-going technical support of a drug after it receives marketing approval to be sold. They may be required by regulatory authorities or may be undertaken for safety or commercial reasons. The costs of such post-marketing studies are not capitalized as intangible assets, as in the opinion of management, they do not generate separately identifiable incremental future economic benefits that can be reliably measured.

Acquired in-process research and development resources obtained through in-licensing arrangements, business combinations or separate asset purchases are capitalized as intangible assets. The acquired asset must be controlled by the Group, be separately identifiable and expected to generate future economic benefits, even if uncertainty exists as to whether the research and development will ultimately result in a marketable product. Consequently, upfront and milestone payments to third parties for pharmaceutical products or compounds before regulatory marketing approval are recognized as intangible assets. Assets acquired through such arrangements are measured on the basis set out in the “Intangible assets” policy. Subsequent internal research and development costs incurred post-acquisition are treated in the same way as other internal research and development costs. If research and development are embedded in contracts for strategic alliances, the Group carefully assesses whether upfront or milestone payments constitute funding of research and development work or acquisition of an asset.

Employee benefits

Short-term employee benefits include wages, salaries, social security contributions, paid annual leave and sick leave, profit sharing and bonuses, and non-monetary benefits for current employees. The costs are recognized within the operating results when the employee has rendered the associated service. The Group recognizes a liability for profit sharing and bonuses where contractually obliged or where there is a past practice that has created a constructive obligation.

Termination benefits are payable when employment is terminated by the Group before the normal retirement date, or whenever an employee accepts voluntary redundancy in exchange for these benefits. Termination costs are recognized at the earlier of when the Group can no longer withdraw the offer of the benefits or when the Group recognizes any related restructuring costs.

Post-employment benefits

For defined contribution plans, the Group’s contributions are recognized within the operating results when the employee has rendered the associated service.

For defined benefit plans the liability or asset recognized in the balance sheet is the net amount of the present value of the defined benefit obligation and the fair value of the plan assets. All changes in the net defined benefit liability (asset) are recognized as they occur as follows:

Recognized in the income statement:

- Current service costs are charged to the appropriate income statement heading within the operating results.
- Past service costs, including curtailment gains or losses, are recognized immediately in general and administration within the operating results.
- Settlement gains or losses are recognized in general and administration within the operating results.
- Net interest on the net defined benefit liability (asset) is recognized in financing costs.

Recognized in other comprehensive income:

- Actuarial gains and losses arising from experience adjustments (the difference between previous assumptions and what has actually occurred) and changes in actuarial assumptions.
- The return on plan assets, excluding amounts included in net interest on the net defined benefit liability (asset).

Net interest on the net defined benefit liability (asset) comprises interest income on plan assets and interest costs on the defined benefit obligation. The net interest is calculated using the same discount rate that is used in calculating the defined benefit obligation, applied to the net defined benefit liability (asset) at the start of the period, taking account of any changes from contribution or benefit payments.

Pension assets and liabilities in different defined benefit plans are not offset unless the Group has a legally enforceable right to use the surplus in one plan to settle obligations in the other plan.

Equity compensation plans

The fair value of all equity compensation awards, including restricted stocks, granted to directors and certain employees is estimated at the grant date and recorded as an expense over the vesting period. The expense is charged to the appropriate income statement heading within the operating results. For equity-settled plans, an increase in equity is recorded for this expense and any subsequent cash flows from exercises of vested awards are recorded as changes in equity.

Property, plant and equipment

Property, plant and equipment are initially recorded at cost of purchase or construction, and include all costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management. These include items such as costs of site preparation, installation and assembly costs and professional fees. The net costs of testing whether the asset is functioning properly, including validation costs, are also included in the initially recorded cost of construction.

Property, plant and equipment are depreciated on a straight-line basis, except for land, which is not depreciated. The estimated useful lives of major classes of depreciable assets are as follows:

- | | |
|----------------------------|-------------|
| • Land improvements: | 40 years |
| • Buildings: | 10-50 years |
| • Machinery and equipment: | 3-15 years |

Where parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate components. The estimated useful lives of the assets are regularly reviewed, and, if necessary, the future depreciation charges are accelerated. Repairs and maintenance costs are expensed as incurred.

Leases

At inception of a contract, the Group assesses whether a contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

The Group recognizes a right-of-use asset and a corresponding lease liability for each contract that is, or contains, a lease at the lease commencement date, except for short-term leases and leases of low-value assets. Payments for short-term leases and leases of low-value assets are recognized as an expense on a straight-line basis over the term of the respective lease.

The lease liability is initially measured at the present value of the future lease payments that are not paid at the lease commencement date. The lease payments are discounted using the interest rate implicit in the lease or, if not readily determinable, the Group's incremental borrowing rate in the respective markets. Lease payments include fixed payments, variable payments that depend on an index or rate known at the lease commencement date and payments from exercising purchase options if the Group is reasonably certain to exercise. The lease liability is subsequently measured at amortized costs using the effective interest method. It is remeasured, with a corresponding adjustment to the related right-of-use asset, when there is a change in future lease payments following a contract renegotiation, a change of an index or rate or a reassessment of options.

The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any payments made at or before the lease commencement date and which includes any initial direct costs incurred and expected costs of obligations to dismantle, remove or refurbish the underlying asset, less any incentives received. Right-of-use assets are depreciated on a straight-line basis from the commencement date to the end of the useful life of the underlying asset if the lease transfers ownership of the underlying asset to the lessee by the end of the lease term or if the cost of the right-of-use asset reflects that the lessee will exercise a purchase option. Otherwise, right-of-use assets are depreciated on a straight-line basis from the lease commencement date over the shorter of the lease term or the useful life of the underlying asset. Right-of-use assets are assessed for impairment whenever there is an indication for impairment.

Intangible assets

Purchased patents, trademarks, licenses and other intangible assets are initially recorded at cost. Assets that have been acquired through a business combination are initially recorded at fair value. Once available for use, intangible assets are amortized on a straight-line basis over their useful lives. The estimated useful life is the lower of the legal duration and the economic useful life. The estimated useful lives of intangible assets are regularly reviewed.

Estimated useful lives of major classes of amortizable intangible assets are as follows:

- Product intangibles in use: 4-18 years
- Marketing intangibles in use: 5 years

Impairment of property, plant and equipment, right-of-use assets and intangible assets

An impairment assessment is carried out at each reporting date when there is evidence that an asset may be impaired. In addition intangible assets that are not yet available for use are tested for impairment annually. When the recoverable amount of an asset, being the higher of its fair value less costs to sell and its value in use, is less than its carrying value, then the carrying value is reduced to its recoverable amount. This reduction is reported in the income statement as an impairment loss. Value in use is calculated using estimated cash flows. These are discounted using an appropriate long-term interest rate. When an impairment loss arises, the useful life of the asset is reviewed and, if necessary, the future depreciation/amortization charge is accelerated.

If the amount of impairment loss subsequently decreases and the decrease can be related objectively to an event occurring after the impairment was recognized, then the previously recognized impairment loss is reversed through the income statement as an impairment reversal.

Inventories

Inventories are stated at the lower of cost and net realizable value. The cost of finished goods, work in process and intermediates includes raw materials, direct labor and other directly attributable costs and overheads based upon the normal capacity of production facilities. Cost is determined using the weighted average method. Net realizable value is the estimated selling price less cost to completion and selling expenses.

Accounts receivable

Accounts receivable are carried at the original invoice amount less allowances made for doubtful accounts, trade discounts, cash discounts, volume rebates and similar allowances. A receivable represents a right to consideration that is unconditional and excludes contract assets. The Group always measures an allowance for doubtful accounts that result from transactions that are within the scope of IFRS 15 equal to the credit losses expected over the lifetime of the trade receivables. These estimates are based on specific indicators, such as the ageing of customer balances, specific credit circumstances and the Group's historical loss rates for each category of customers, and adjusted for forward looking macroeconomic data. The Group measures an allowance for doubtful accounts that result from transactions that are not within the scope of IFRS 15 equal to 12-months expected credit losses when the credit risk for these accounts has not increased significantly since initial recognition.

Expenses for doubtful trade receivables are recognized within marketing and distribution expenses. Trade discounts, cash discounts, volume rebates and similar allowances are recorded on an accrual basis consistent with the recognition of the related sales, using estimates based on existing contractual obligations, historical trends and the Group's experience. Accounts receivable are written off (either partially or in full) when there is no reasonable expectation of recovery. Where receivables have been written off, the Group continues to engage in enforcement activities to attempt to recover the receivable due. Where recoveries are made, these are recognized in profit or loss.

Cash and cash equivalents

Cash and cash equivalents include cash on hand and time, call and current balances with banks and similar institutions. Such balances are only reported as cash equivalents if they are readily convertible to known amounts of cash, are subject to insignificant risk of changes in their fair value and have a maturity of three months or less from the date of acquisition.

Provisions and contingencies

Provisions are recognized where a legal or constructive obligation has been incurred which will probably lead to an outflow of resources that can be reliably estimated. In particular, restructuring provisions are recognized when the Group has a detailed formal plan that has either commenced implementation or has been announced. Provisions are recorded for the estimated ultimate liability that is expected to arise and are discounted when the time value of money is material.

A contingent liability is disclosed where the existence of the obligation will only be confirmed by future events or where the amount of the obligation cannot be measured with reasonable reliability. Contingent assets are not recognized, but are disclosed where an inflow of economic benefits is probable.

Fair values

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. It is determined by reference to quoted market prices or by the use of established valuation techniques such as option pricing models and the discounted cash flow method if quoted prices in an active market are not available.

Financial instruments

The Group classifies its financial assets, with the exception of derivatives, in the following measurement categories: amortized cost; fair value through OCI; and fair value through profit or loss.

The classification depends on the Group's business model for managing the financial assets and the contractual terms of the cash flows. The Group reclassifies debt securities and financial assets measured at amortized cost when and only when its business model for managing those assets changes.

At initial recognition, the Group measures a financial asset at its fair value excluding trade receivables at transaction price if it does not contain a significant financing component. In the case of a financial asset not at fair value through profit or loss, transaction costs that are directly attributable to the acquisition of the financial asset are added to the fair value. Transaction costs of financial assets carried at fair value through profit or loss are expensed in profit or loss.

Financial assets measured at amortized cost: Assets that are held for collection of contractual cash flows where those cash flows represent solely payments of principal and interest are measured at amortized cost. A gain or loss on a debt security that is subsequently measured at amortized cost and is not part of a hedging relationship is recognized in profit or loss when the asset is derecognized or impaired. Interest income from these financial assets is included in other financial income using the effective interest rate method. Financial assets measured at amortized cost are mainly comprised of accounts receivable, cash and cash equivalents and time accounts over three months.

Financial assets measured at fair value through other comprehensive income (fair value through OCI): These are financial assets that are held for collection of contractual cash flows and for selling the financial assets, where the assets' cash flows represent solely payments of principal and interest. These assets are initially recorded and subsequently carried at fair value. Changes in the fair value are recorded in other comprehensive income, except for the recognition of impairment gains or losses, interest revenue and foreign exchange gains and losses which are recognized in profit and loss. When the financial asset is derecognized, the cumulative gain or loss previously recognized in OCI is reclassified from equity to profit or loss. Interest income from these financial assets is included in other financial income using the effective interest rate method. Financial assets measured at fair value through other comprehensive income are mainly comprised of money market instruments.

Equity instruments measured at fair value through other comprehensive income (fair value through OCI): These are equity instruments measured at fair value through OCI for which an irrevocable election at initial recognition has been made, to present subsequent changes in fair value in other comprehensive income. Dividends are recognized as other financial income in profit or loss. Other net gains and losses are recognized in OCI and are never reclassified to profit or loss. When the instruments are derecognized, the cumulative amount of other comprehensive income is transferred to retained earnings.

Financial assets measured at fair value through profit or loss: These are financial assets whose performance is evaluated on a fair value basis. A gain or loss on a financial asset that is subsequently measured at fair value through profit or loss and is not part of a hedging relationship is recognized in profit or loss and presented within other financial income (expense) in the period in which it arises. Fair value through profit or loss assets are mainly comprised of debt instruments.

The Group classifies its financial liabilities as measured at amortized cost, except for derivatives. Financial liabilities are initially recorded at fair value, less transaction costs and subsequently carried at amortized cost using the effective interest rate method. Financial liabilities are mainly comprised of trade payables.

Derivative financial instruments that are used to manage the exposures to foreign currency exchange rate fluctuations are initially recorded and subsequently carried at fair value. Apart from those derivatives designated as qualifying cash flow hedging instruments, all changes in fair value are recorded as other financial income (expense).

Derecognition of financial instruments

A financial asset is derecognized when the contractual rights to the cash flows from the asset expire or when the Group transfers the rights to receive the contractual cash flows from the financial assets in a transaction in which substantially all the risks and rewards of ownership of the financial asset are transferred. A financial liability is derecognized when the contractual obligations are discharged, cancelled or expire.

Impairment of financial assets

The Group recognizes loss allowances for expected credit losses ('ECL') for financial assets measured at amortized cost and debt securities measured at fair value through OCI.

The Group always measures loss allowances that result from transactions that are within the scope of IFRS 15 equal to the credit losses expected over the lifetime of the trade receivables.

The Group measures loss allowances at an amount equal to 12-month expected credit losses for its debt securities carried at fair value through OCI and at amortized cost when the credit risk for these accounts has not increased significantly since initial recognition at the reporting date. The Group considers a debt investment to have low credit risk when their credit risk rating is equivalent to the globally understood definition of 'investment grade'. The Group considers this to be at least Baa3 from Moody's and BBB-from S&P.

The Group measures the allowances for doubtful account at an amount equal to lifetime ECL for its debt investments at fair value through OCI and at amortized cost on which credit risk has increased significantly since their initial recognition. The Group assumes that the credit risk on a financial asset has increased significantly if it is more than 30 days past due.

The Group considers a financial asset to be in default when the counterparty is unlikely to pay its obligations to the Group in full. In assessing whether a counterparty is in default, the Group considers both qualitative and quantitative indicators that are based on data developed internally and for certain financial assets also obtained from external sources.

Financial assets are written off (either partially or in full) when there is no realistic prospect of recovery. This is generally the case when the Group determines that the customer does not have assets or sources of income that could generate sufficient cash flows to repay the amounts subject to the write-off. However, financial assets that are written off are still subject to enforcement activities in order to comply with the Group's policy for recovery of amounts due.

Hedge accounting

The Group uses derivatives to manage its exposures to foreign currency risk. The instruments used mainly include forwards contracts. The Group generally limits the use of hedge accounting to certain significant transactions. To qualify for hedge accounting the hedging relationship must meet several strict conditions on documentation, probability of occurrence, hedge effectiveness and reliability of measurement. While many of these transactions can be considered as hedges in economic terms, if the required conditions are not met, then the relationship does not qualify for hedge accounting. In this case the hedging instrument and the hedged item are reported independently as if there were no hedging relationship, which means that any derivatives are reported at fair value, with changes in fair value included in other financial income (expense).

As the Group may continue to apply the hedge accounting requirements of IAS 39 instead of those in IFRS 9 at the initial application of IFRS 9, the Group has chosen to continue to apply the hedge accounting requirements of IAS 39.

A cash flow hedge is a hedge of the exposure to variability in cash flows that is attributable to a particular risk associated with a recognized asset or liability or a highly probable forecast transaction and could affect profit or loss. The hedging instrument is recorded at fair value. The effective portion of the hedge is included in other comprehensive income and any ineffective portion is reported in other financial income (expense). If the hedging relationship is the hedge of the foreign currency risk of a firm commitment or highly probable transaction, when that transaction results in the recognition of a non-financial item, the cumulative changes in the fair value of the hedging instrument that have been recorded in other comprehensive income are included in the initial carrying value of the non-financial item at the date of recognition, or otherwise included in profit or loss when the hedged transaction affects net income.

For other hedged forecasted cash flows, the cumulative changes in the fair value of the hedging instrument that have been recorded in other comprehensive income are included in other financial income (expense) when the forecasted transaction affects net income. Hedge accounting is discontinued proactively if the hedging instrument is sold, expired, terminated or exercised; if the hedge no longer meets the requirements of hedge accounting; or if the hedging instrument is no longer designated as a qualifying cash flow hedging instrument. If a forecast transaction is no longer considered highly probable, the cumulative changes in the fair value of the hedging instrument that have been recorded in other comprehensive income are immediately transferred to other financial income (expense).

Taxation

Income taxes include all taxes based upon the taxable profits of the Group. Other taxes not based on income, such as property and capital taxes, are included in the appropriate heading within the operating results.

Liabilities for income taxes, which could arise on the remittance of retained earnings, principally relating to subsidiaries, are only recognized where it is probable that such earnings will be remitted in the foreseeable future. Where the amount of tax liabilities is uncertain, accruals are recorded within income tax liabilities for management's best estimate of the ultimate liability that is expected to arise based on the specific circumstances and the Group's historical experience.

Deferred tax assets and liabilities are recognized on temporary differences between the tax bases of assets and liabilities and their carrying values. Deferred tax assets are recognized to the extent that it is probable that future taxable profit will be available against which the unused tax losses can be utilized.

Current and deferred tax assets and liabilities are offset when the income taxes are levied by the same taxation authority and when there is a legally enforceable right to offset them. Deferred taxes are determined based on the currently enacted tax rates applicable in each tax jurisdiction where the Group operates.

Own equity instruments

The Group's holdings in its own equity instruments are recorded as a deduction from equity. The original purchase cost, consideration received for subsequent resale of these equity instruments and other movements are reported as changes in equity. The exercise of stock acquisition rights granted to directors and certain employees will result in the allotment from own equity instruments.

(4) Changes in accounting policies

The Group applies the same accounting policies that were applied to the consolidated financial statements for the year ended December 31, 2020. Although minor changes have been made to certain accounting standards, they do not have a material impact on the Group's overall results and financial position.

(5) Future new and revised standards

The Group is currently assessing the potential impacts of new standards and interpretations that will be effective from January 1, 2022 and beyond. Based on the analysis to date, the Group does not anticipate that these will have a material impact on the Group's overall results and financial position.

2. Operating segment information

The Group has a single business of pharmaceuticals and does not have multiple operating segments. The Group's pharmaceuticals business consists of the research and development of new prescription medicines and the subsequent manufacturing, marketing and distribution activities. These functional activities are integrated and managed effectively.

Information on revenues by geographical area in millions of yen

	2021		2020	
	Sales	Royalties and other operating income	Sales	Royalties and other operating income
Japan	518,948	3,449	409,106	9,852
Overseas	283,888	193,473	224,209	143,779
of which Switzerland	261,734	188,483	205,180	142,403
Total	802,836	196,922	633,314	153,631

Information on revenues by major customers in millions of yen

	2021		2020	
	Revenues		Revenues	
F. Hoffmann-La Roche Ltd.		450,217		347,583
Alfresa Corporation		104,690		105,066

3. Revenue

Disaggregated revenue information in millions of yen

	2021			2020		
	Revenue from contracts with customers	Revenue from other sources	Total	Revenue from contracts with customers	Revenue from other sources	Total
Sales	813,247	(10,410)	802,836	638,354	(5,039)	633,314
Japan	518,948	-	518,948	409,106	-	409,106
Overseas	294,298	(10,410)	283,888	229,248	(5,039)	224,209
Royalties and other operating income	175,922	21,000	196,922	140,732	12,900	153,631
Royalty and profit-sharing income	166,168	21,000	187,168	116,678	12,881	129,559
Other operating income	9,754	-	9,754	24,053	19	24,072

The revenue from other sources primarily relates to collaboration income for which the counterparty is not considered a customer, such as income from profit-sharing arrangements, and the gains or losses from hedging activities.

Contract balances in millions of yen

	December 31, 2021	January 1, 2021
Receivables-contracts with customers	329,740	235,094
Accounts receivable	281,357	195,655
Other current receivables	45,889	37,319
Other non-current receivables	2,494	2,120
Contract assets	620	930
Contract liabilities	93	122

Contract assets, which are mainly variable consideration from the disposal of product and similar rights, generally increase when the Group transfers goods or services to a customer (excluding claims for which the right to remuneration is unconditional) before the customer pays the consideration or before the payment becomes due and decrease when the Group bills the customer.

Contract liabilities, which mainly arise from consignment agreements, generally increase when the Group receives consideration from a customer prior to the transfer of goods or services to the customer and decrease when the Group meets its performance obligations.

Of the amount of revenue recognized for the year ended December 31, 2021, ¥44 million was included in the beginning balance of contract liabilities.

In 2021 there was revenue recognized of ¥167,702 million (2020: ¥133,722 million) relating to performance obligations that were satisfied in previous periods, mainly in relation to royalty and milestone revenue.

Transaction price allocated to the remaining performance obligations

There are no material amounts of the total transaction price allocated to the remaining performance obligations which have an original expected duration of more than one year as of December 31, 2021. As a practical expedient, the Group does not disclose the information for remaining performance obligations which are part of contracts that have an original expected duration of one year or less.

There are no material amounts which are not included in the transaction price in the consideration from the contracts with customers.

4. Financing costs and other financial income (expense)**Financing costs** in millions of yen

	2021	2020
Net interest cost of defined benefit plans	1	(26)
Interest expense on lease liabilities	(48)	(34)
Net other financing costs	(1)	(1)
Total financing costs	(48)	(62)

Other financial income (expense) in millions of yen

	2021	2020
Dividend income from equity instruments measured at fair value through OCI	3	3
Net income from equity securities	3	3
Interest income from debt securities measured at fair value through OCI	111	61
Interest income from financial assets measured at amortized cost	55	59
Net interest income and income from debt securities	166	121
Foreign exchange gains (losses)	3,802	1,983
Gains (losses) on foreign currency derivatives	(3,867)	(3,646)
Net foreign exchange gains (losses)	(65)	(1,663)
Net other financial income (expense)	(28)	63
Total other financial income (expense)	76	(1,477)

5. Other expense

Chugai filed an Advance Pricing Agreement covering certain transactions with F. Hoffmann-La Roche Ltd. to the Japanese and Swiss tax authorities. In the first quarter of the year ended December 31, 2017, Chugai received a notice of agreement from both tax authorities which includes the instruction that the taxable income of Chugai shall be decreased by a certain amount and that of Roche shall be increased by the same amount in each fiscal year from 2016 to 2020, and if necessary, additional adjustments to the accounts shall be made in 2021.

As a result of this agreement, Chugai will transfer a part of the deducted amount of income taxes to Roche as the estimated tax payable for Roche in accordance with the license agreement between Chugai and Roche. Chugai has recorded ¥2,540 million of adjustment from transfer pricing taxation for the year ended December 31, 2021 as a settlement for the amounts paid in previous years.

6. Income taxes

Income tax expenses in millions of yen

	2021	2020
Current income taxes	(126,248)	(89,017)
Deferred taxes	9,858	5,562
Total income tax (expense)	(116,390)	(83,455)

Reconciliation of the Group's effective tax rate

	2021	2020
Weighted average expected tax rate	30.3%	30.3%
Tax effect of		
- Non-taxable income/non-deductible expenses	0.0%	0.1%
- Research and development tax credits	(2.7)%	(2.8)%
- Transfer pricing taxation related	(1.1)%	(1.2)%
- Other differences	1.2%	1.7%
Group's effective tax rate	27.8%	28.0%

Tax effects of other comprehensive income in millions of yen

	2021			2020		
	Pre-tax amount	Tax benefit	After-tax amount	Pre-tax amount	Tax benefit	After-tax Amount
Remeasurements of defined benefit plans	839	(255)	583	5,242	(1,612)	3,630
Financial assets measured at fair value through OCI	(416)	128	(288)	(187)	177	(9)
Cash flow hedges	(421)	128	(292)	(4,421)	1,349	(3,072)
Currency translation of foreign operations	3,022	-	3,022	1,467	-	1,467
Other comprehensive income	3,024	1	3,025	2,101	(86)	2,015

Income tax assets (liabilities) in millions of yen

	December 31, 2021	December 31, 2020
Current income taxes		
- Assets	928	12
- Liabilities	(86,312)	(63,171)
Net current income tax assets (liabilities)	(85,384)	(63,158)
Deferred taxes		
- Assets	56,287	47,934
- Liabilities	(7,614)	(9,166)
Net deferred tax assets (liabilities)	48,674	38,768

Current income taxes: movements in recognized net assets (liabilities) in millions of yen

	2021	2020
Net current income tax assets (liabilities) at January 1	(63,158)	(41,046)
Income taxes paid	104,074	66,785
(Charged) credited to the income statement	(126,248)	(89,017)
Currency translation effects and other	(52)	120
Net current income tax assets (liabilities) at December 31	(85,384)	(63,158)

Deferred taxes: movements in recognized net assets (liabilities) in millions of yen

	Property, plant and equipment and right-of- use assets	Intangible assets	Provisions	Employee benefits	Other temporary differences	Total
Year ended December 31, 2020						
At January 1, 2020	(26,773)	(2,976)	129	5,198	57,798	33,376
(Charged) credited to the income statement	3,538	264	44	(324)	2,040	5,562
(Charged) credited to other comprehensive income	-	-	-	(1,612)	1,406	(206)
Currency translation effects and other	7	0	1	3	25	36
At December 31, 2020	(23,228)	(2,712)	174	3,265	61,270	38,768
Year ended December 31, 2021						
At January 1, 2021	(23,228)	(2,712)	174	3,265	61,270	38,768
(Charged) credited to the income statement	(3,227)	1,237	(61)	(278)	12,187	9,858
(Charged) credited to other comprehensive income	-	-	-	(255)	264	9
Currency translation effects and other	(96)	0	1	4	130	39
At December 31, 2021	(26,551)	(1,475)	114	2,735	73,851	48,674

Other temporary differences mainly relate to prepaid expenses, production supplies and amortization of deferred assets.

Deferred tax assets are not recognized for deductible temporary differences of ¥570 million (2020: ¥576 million). Deferred tax assets are recognized for tax losses carried forward only to the extent that realization of the related tax benefit is probable.

Unrecognized tax losses: expiry in millions of yen

	2021	2020
Less than one year	62	-
Over one year and less than five years	292	244
Over five years	-	4
Tax losses not recognized in deferred tax assets	354	248

Deferred tax assets for unused tax credits are recognized only to the extent that realization of the related tax benefit is probable.

Unrecognized unused tax credits: expiry in millions of yen

	2021	2020
Less than one year	-	-
Over one year and less than five years	-	-
Over five years	116	104
Unused tax credits not recognized in deferred tax assets	116	104

Deferred tax liabilities have not been established for the withholding tax and other taxes that would be payable on the unremitted earnings of wholly owned foreign subsidiaries of the Group, where such amounts are currently regarded as permanently reinvested. The temporary differences relating to the unremitted earnings were ¥3,501 million (2020: ¥2,778 million).

7. Property, plant and equipment

Property, plant and equipment: movements in carrying value of assets in millions of yen

	Land	Buildings and land improvements	Machinery and equipment	Construction in progress	Total
At January 1, 2020					
Cost	52,155	136,642	224,929	36,068	449,794
Accumulated depreciation and impairment	(16)	(71,320)	(122,899)	-	(194,235)
Net book value	52,139	65,322	102,030	36,068	255,559
Year ended December 31, 2020					
At January 1, 2020	52,139	65,322	102,030	36,068	255,559
Additions	-	4	115	75,121	75,240
Disposals	-	(96)	(189)	-	(285)
Transfers	-	5,357	25,996	(31,353)	-
Depreciation charge	-	(8,509)	(13,457)	-	(21,966)
Impairment charge	-	(256)	(40)	-	(296)
Other	-	-	(18,969)	-	(18,969)
Currency translation effects	-	(6)	(61)	0	(67)
At December 31, 2020	52,139	61,817	95,425	79,837	289,218
Cost	52,155	141,512	225,360	79,837	498,864
Accumulated depreciation and impairment	(16)	(79,695)	(129,936)	-	(209,647)
Net book value	52,139	61,817	95,425	79,837	289,218
Year ended December 31, 2021					
At January 1, 2021	52,139	61,817	95,425	79,837	289,218
Additions	-	3	363	71,627	71,993
Disposals	(916)	(208)	(517)	-	(1,641)
Transfers	(1,191)	2,138	17,974	(18,922)	-
Depreciation charge	-	(7,999)	(12,975)	-	(20,974)
Impairment charge	-	-	-	-	-
Other	-	-	(123)	-	(123)
Currency translation effects	-	116	212	41	369
At December 31, 2021	50,032	55,867	100,359	132,584	338,841
Cost	50,048	139,868	235,292	132,584	557,791
Accumulated depreciation and impairment	(16)	(84,001)	(134,933)	-	(218,950)
Net book value	50,032	55,867	100,359	132,584	338,841

In 2021, no borrowing costs were capitalized as property, plant and equipment (2020: none).

Impairment charge

The carrying value was reduced to the value in use as the recoverable amount of certain assets was less than the carrying value.

Classification of impairment of property, plant and equipment in millions of yen

	2021	2020
Cost of sales	-	-
Marketing and distribution	-	-
Research and development	-	19
General and administration	-	277
Total impairment charge	-	296

Commitments

The Group has commitments for the purchase or construction of property, plant and equipment after December 31, 2021 totaling ¥64,668 million (2020: ¥56,166 million).

8. Leases

The Group enters into leasing transactions as a lessee mainly for reasons of convenience and flexibility. The Group has good cash generation ability and it enjoys strong long-term investment grade credit ratings. Therefore, it typically does not enter into leasing arrangements for financing considerations. The main areas of leases that the Group has entered into are for offices and motor vehicles.

The right-of-use assets reported for the Group's leases are shown in the table below.

Right-of-use assets: movements in carrying value of assets in millions of yen

	Buildings and land improvements	Machinery and equipment	Total
Year ended December 31, 2021			
At January 1, 2021	6,918	1,355	8,272
Depreciation charge	(5,298)	(593)	(5,890)
At December 31, 2021	11,881	1,385	13,266

Additions to the right-of-use assets during 2021 were ¥14,298 million.

	Buildings and land improvements	Machinery and equipment	Total
Year ended December 31, 2020			
At January 1, 2020	8,481	1,267	9,749
Depreciation charge	(4,845)	(663)	(5,509)
At December 31, 2020	6,918	1,355	8,272

Additions to the right-of-use assets during 2020 were ¥7,810 million.

Lease liabilities are presented in other current liabilities and other non-current liabilities. The amount of current lease liabilities and non-current lease liabilities are given in Note 18 and 20 respectively. Interest expense on the lease liability during 2021 was ¥48 million (¥34 million during 2020). The maturity analysis of lease liabilities is shown in the table below.

Contractual maturities of lease liabilities in millions of yen

	Carrying value	Total	Less than 1 year	1-2 years	2-5 years	Over 5 years
At December 31, 2021						
Lease liabilities	16,040	16,249	6,620	5,119	4,476	33
	Carrying value	Total	Less than 1 year	1-2 years	2-5 years	Over 5 years
At December 31, 2020						
Lease liabilities	11,285	11,494	6,714	3,892	797	90

Short-term leases and leases of low-value assets are accounted for using the recognition exemption permitted by IFRS 16. Expenses for short-term leases are recognized on a straight-line basis and mainly include short-term leases for parking lots. The total amount reported in 2021 was ¥863 million (¥746 million in 2020). Expenses for leases of low-value assets are recognized on a straight-line basis and mainly include IT equipment. The total amount reported in 2021 was ¥363 million (¥464 million in 2020). Expenses for variable lease payments not included in the measurement of lease liabilities reported in 2021 was ¥126 million (¥80 million in 2020). The Group did not enter into any sale and leaseback transactions.

The major cash flows in respect of leases where the Group is the lessee are shown in the table below.

Leases: cash flows in millions of yen

	2021	2020
Included in cash flows from operating activities	(1,353)	(1,290)
Included in cash flows from financing activities	(9,078)	(8,465)
Total lease payments	(10,431)	(9,755)

Cash flows from operating activities include cash flows from short-term leases, leases of low-value assets and variable lease payments. Cash flows from financing activities include the payment of interest and the principal portion of lease liabilities as well as prepayments made before the lease commencement date.

9. Intangible assets

Intangible assets: movements in carrying value of assets in millions of yen

	Product intangibles: in use	Product intangibles: not available for use	Marketing intangibles: in use	Technology intangibles: in use	Total
At January 1, 2020					
Cost	23,677	21,592	9,614	667	55,550
Accumulated amortization and impairment	(16,259)	(11,708)	(3,468)	(575)	(32,010)
Net book value	7,418	9,883	6,146	92	23,540

Year ended December 31, 2020

At January 1, 2020	7,418	9,883	6,146	92	23,540
Additions	6	2,274	1,617	-	3,896
Disposals	-	-	-	-	-
Transfers	651	(651)	-	-	-
Amortization charge	(1,197)	-	(1,616)	(89)	(2,901)
Impairment charge	-	(644)	(13)	-	(657)
Currency translation effects	3	-	-	-	3
At December 31, 2020	6,880	10,862	6,134	4	23,880

Cost	24,456	23,304	11,074	667	59,501
Accumulated amortization and impairment	(17,576)	(12,441)	(4,940)	(663)	(35,620)
Net book value	6,880	10,862	6,134	4	23,880

Year ended December 31, 2021

At January 1, 2021	6,880	10,862	6,134	4	23,880
Additions	16	7,863	559	-	8,438
Disposals	-	-	-	-	-
Transfers	4,959	(4,959)	-	-	-
Amortization charge	(2,194)	-	(1,806)	(4)	(4,004)
Impairment charge	(467)	(4,063)	(1,812)	-	(6,342)
Currency translation effects	2	-	-	-	2
At December 31, 2021	9,196	9,704	3,074	-	21,974

Cost	28,393	26,270	11,567	667	66,896
Accumulated amortization and impairment	(19,197)	(16,566)	(8,492)	(667)	(44,922)
Net book value	9,196	9,704	3,074	-	21,974

Significant intangible assets

The product intangibles in use and not available for use are mainly acquired through in-licensing agreements of products with related parties. The remaining amortization periods for product intangibles in use are from 2 to 17 years.

Impairment charge

Impairment charge in each year was mainly related to the cessation of R&D projects and the uncertainty regarding expected profits.

Classification of amortization and impairment expenses in millions of yen

	2021		2020	
	Amortization	Impairment	Amortization	Impairment
Cost of sales	2,194	467	1,197	-
Marketing and distribution	258	-	250	13
Research and development	672	5,351	586	644
General and administration	880	524	869	-
Total	4,004	6,342	2,901	657

Internally generated intangible assets

The Group currently has no internally generated intangible assets from development as the criteria for the recognition as an asset are not met.

Intangible assets with indefinite useful lives

The Group currently has no intangible assets with indefinite useful lives.

Product intangibles not available for use

These mostly represent in-process research and development assets acquired either through in-licensing arrangements or separate purchases. Due to the inherent uncertainties in the research and development processes, intangible assets not available for use are particularly at risk of impairment if the project is not expected to result in a commercialized product.

Impairment of intangible assets

Impairment charges arise from changes in the estimates of the future cash flows expected to result from the use of the asset and its eventual disposal. Factors such as the presence or absence of competition, technical obsolescence or lower than anticipated sales for products with capitalized rights could result in shortened useful lives or impairment.

Potential commitments from alliance collaborations

The Group is party to in-licensing and similar arrangements with its alliance partners. These arrangements may require the Group to make certain milestone or other similar payments dependent upon the achievement of agreed objectives or performance targets as defined in the collaboration agreements.

The Group's current estimate of future commitments for such payments is set out in the table below. These figures are undiscounted and are not risk adjusted, meaning that they include all such potential payments that can arise assuming all projects currently in development are successful. The timing is based on the Group's current best estimate.

Potential future collaboration payments at December 31, 2021 in millions of yen

	Third party	Related party	Total
Within one year	-	1,716	1,716
Between one and two years	300	7,467	7,767
Between two and three years	1,477	10,016	11,493
Total	1,777	19,198	20,976

10. Financial non-current assets**Financial non-current assets in millions of yen**

	December 31, 2021	December 31, 2020
Financial assets measured at fair value through OCI	2,393	2,841
Total financial non-current assets	2,393	2,841

Financial non-current assets are equity instruments held not for pure investment purposes, but for the Group's business purposes to maintain and strengthen the relationship with business partners. Therefore, the Group has designated all equity instruments as measured at fair value through OCI.

11. Other non-current assets

Other non-current assets in millions of yen

	December 31, 2021	December 31, 2020
Long-term prepaid expenses	23,987	20,316
Debt instruments	9,383	188
Other assets	7,573	7,450
Total other non-current assets	40,944	27,954

Long-term prepaid expenses are mainly payments to related parties for start-up and validation costs at plants used for outsourcing to the related parties.

(Note) Debt instruments which were included in other assets as of December 31, 2020, are presented separately as of December 31, 2021 due to the increased monetary importance. As a result of this change, ¥188 million that was included in other assets as of December 31, 2020 has been reclassified to debt instruments.

12. Inventories

Inventories in millions of yen

	December 31, 2021	December 31, 2020
Raw materials and supplies	32,646	32,884
Work in process	197	145
Intermediates	105,478	87,120
Finished goods	71,661	64,382
Provision for slow-moving and obsolete inventory	(1,143)	(639)
Total inventories	208,838	183,893

Inventories expensed through cost of sales totaled ¥326,429 million (2020: ¥259,389 million). Inventory write-downs during the year resulted in an expense of ¥1,350 million (2020: ¥19 million).

13. Accounts receivable

Accounts receivable in millions of yen

	December 31, 2021	December 31, 2020
Trade receivables – third party	172,878	118,874
Trade receivables – related party	108,460	76,770
Notes receivables	19	11
Other receivables – third party (Contracts with customers)	1,713	826
Other receivables – related party (Contracts with customers)	44,176	36,493
Other receivables – third party	4,764	4,330
Other receivables – related party	23,090	16,050
Allowances for doubtful accounts	(17)	(13)
Total accounts receivable	355,081	253,342

14. Marketable securities

Marketable securities in millions of yen

	December 31, 2021	December 31, 2020
Financial assets measured at fair value through OCI		
Money market instruments	199,989	159,989
Debt securities	924	5,920
Financial assets measured at amortized cost		
Time accounts over three months	3,303	378
Total marketable securities	204,217	166,287

Marketable securities are held for fund management purposes. Money market instruments are mainly certificates of deposit, cash in trust and commercial paper. Debt securities are mainly corporate bonds.

15. Cash and cash equivalents

Cash and cash equivalents in millions of yen

	December 31, 2021	December 31, 2020
Cash - cash in hand and in current or call accounts	261,331	205,734
Cash equivalents - time accounts with a maturity of three months or less	6,421	6,599
Total cash and cash equivalents	267,753	212,333

16. Other current assets

Other current assets in millions of yen

	December 31, 2021	December 31, 2020
Derivative financial instruments	9,233	3,732
Total financial current assets	9,233	3,732
Prepaid expenses	17,301	14,997
Other	310	310
Total non-financial current assets	17,611	15,307
Total other current assets	26,844	19,039

17. Provisions and contingent liabilities

Provisions: movements in recognized liabilities in millions of yen

	Environmental provisions	Other provisions	Total
Year ended December 31, 2020			
At January 1, 2020	280	2,073	2,353
Additional provisions created	144	81	225
Unused amounts reversed	-	(20)	(20)
Utilized	(23)	(33)	(56)
Other	-	(0)	(0)
At December 31, 2020	402	2,098	2,500
Long-term provisions	349	1,793	2,142
Short-term provisions	53	306	358
At December 31, 2020	402	2,098	2,500

Year ended December 31, 2021			
At January 1, 2021	402	2,098	2,500
Additional provisions created	34	2,649	2,683
Unused amounts reversed	-	(40)	(40)
Utilized	(86)	(606)	(692)
Other	0	345	345
At December 31, 2021	349	4,447	4,796
Long-term provisions	329	1,772	2,101
Short-term provisions	20	2,675	2,695
At December 31, 2021	349	4,447	4,796
Expected outflow of resources			
Within one year	20	2,675	2,695
Between one to two years	7	324	331
Between two to three years	-	1	1
More than three years	322	1,447	1,769
At December 31, 2021	349	4,447	4,796

Environmental provisions

Provisions for environmental matters include various separate environmental issues. By their nature the amounts and timings of any outflows are difficult to predict. Significant provisions are discounted where the time value of money is material.

Other provisions

Other provisions mainly relate to asset retirement obligations and onerous contracts. The timings of cash outflows are uncertain due to their nature. Significant provisions are discounted where the time value of money is material.

Contingent liabilities

The operations and earnings of the Group continue, from time to time and in varying degrees, to be affected by political, legislative, fiscal and regulatory developments, including those relating to environmental protection. The industries in which the Group operates are also subject to other risks of various kinds. The nature and frequency of these developments and events, not all of which are covered by insurance, as well as their effect on future operations and earnings, are not predictable.

The Group has entered into in-licensing and alliance arrangements and intangible asset purchase agreements, including asset acquisitions, in order to gain access to potential new products or to utilize other companies to help develop the Group's own potential new products. Potential future payments may become due to certain collaboration partners achieving certain milestones as defined in the collaboration agreements. The Group's best estimates for future commitment payments are given in Note 9.

18. Other non-current liabilities

Other non-current liabilities in millions of yen

	December 31, 2021	December 31, 2020
Deferred income	490	564
Lease liabilities	9,490	4,635
Other long-term liabilities	615	635
Total other non-current liabilities	10,595	5,835

19. Accounts payable

Accounts payable in millions of yen

	December 31, 2021	December 31, 2020
Trade payables – third party	8,184	8,327
Trade payables – related party	89,020	49,957
Other taxes payable	8,672	5,617
Accounts payable purchase of property, plant and equipment	30,763	24,821
Other payables – third party	4,649	4,637
Other payables – related party	10,979	7,037
Total accounts payable	152,266	100,396

20. Other current liabilities

Other current liabilities in millions of yen

	December 31, 2021	December 31, 2020
Deferred income	86	80
Lease liabilities	6,550	6,649
Accrued bonus and related items	21,981	20,142
Derivative financial instruments	23,110	13,699
Other accrued liabilities	34,421	31,575
Total other current liabilities	86,149	72,146

21. Equity attributable to Chugai shareholders

Changes in equity attributable to Chugai shareholders in millions of yen

	Share capital	Capital surplus	Retained earnings	Other reserves			Total
				Fair value reserve	Hedging reserve	Translation reserve	
Year ended December 31, 2020							
At January 1, 2020	73,016	67,037	722,076	530	(1,260)	(7,413)	853,985
Net income attributable to Chugai shareholders	-	-	214,733	-	-	-	214,733
Financial assets measured at fair value through OCI							
- Equity instruments measured at fair value through OCI	-	-	-	(204)	-	-	(204)
- Debt securities at fair value through OCI	-	-	-	18	-	-	18
- Income taxes	-	-	-	177	-	-	177
Cash flow hedges							
- Effective portion of fair value gains (losses) taken to equity	-	-	-	-	(10,295)	-	(10,295)
- Transferred to income statement	-	-	-	-	11,069	-	11,069
- Transferred to initial carrying amount of hedged items	-	-	-	-	(5,195)	-	(5,195)
- Income taxes	-	-	-	-	1,349	-	1,349
Currency translation of foreign operations							
- Exchange differences	-	-	-	-	-	1,467	1,467
- Non-controlling interests	-	-	-	-	-	-	-
Defined benefit plans							
- Remeasurement gains (losses)	-	-	5,242	-	-	-	5,242
- Income taxes	-	-	(1,612)	-	-	-	(1,612)
Other comprehensive income, net of tax	-	-	3,630	(9)	(3,072)	1,467	2,015
Total comprehensive income	-	-	218,363	(9)	(3,072)	1,467	216,748
Dividends	-	-	(91,467)	-	-	-	(91,467)
Equity compensation plans	186	(774)	-	-	-	-	(588)
Own equity instruments	-	1,324	-	-	-	-	1,324
Transfer from other reserves to retained earnings	-	-	121	(121)	-	-	-
At December 31, 2020	73,202	67,586	849,093	400	(4,332)	(5,946)	980,003

Changes in equity attributable to Chugai shareholders in millions of yen

	Share capital	Capital surplus	Retained earnings	Other reserves			Total
				Fair value reserve	Hedging reserve	Translation reserve	
Year ended December 31, 2021							
At January 1, 2021	73,202	67,586	849,093	400	(4,332)	(5,946)	980,003
Net income attributable to Chugai shareholders	-	-	302,995	-	-	-	302,995
Financial assets measured at fair value through OCI							
- Equity instruments measured at fair value through OCI	-	-	-	(421)	-	-	(421)
- Debt securities at fair value through OCI	-	-	-	5	-	-	5
- Income taxes	-	-	-	128	-	-	128
Cash flow hedges							
- Effective portion of fair value gains (losses) taken to equity	-	-	-	-	(12,479)	-	(12,479)
- Transferred to income statement	-	-	-	-	17,757	-	17,757
- Transferred to initial carrying amount of hedged items	-	-	-	-	(5,698)	-	(5,698)
- Income taxes	-	-	-	-	128	-	128
Currency translation of foreign operations							
- Exchange differences	-	-	-	-	-	3,022	3,022
- Non-controlling interests	-	-	-	-	-	-	-
Defined benefit plans							
- Remeasurement gains (losses)	-	-	839	-	-	-	839
- Income taxes	-	-	(255)	-	-	-	(255)
Other comprehensive income, net of tax	-	-	583	(288)	(292)	3,022	3,025
Total comprehensive income	-	-	303,578	(288)	(292)	3,022	306,020
Dividends	-	-	(98,642)	-	-	-	(98,642)
Equity compensation plans	-	(27)	-	-	-	-	(27)
Own equity instruments	-	664	-	-	-	-	664
Transfer from other reserves to retained earnings	-	-	21	(21)	-	-	-
At December 31, 2021	73,202	68,223	1,054,050	91	(4,624)	(2,924)	1,188,017

Share capital (Number of shares)

	December 31, 2021	December 31, 2020
Authorized shares	2,399,415,150	2,399,415,150
Issued shares (Non-par value common stock)	1,679,057,667	1,679,057,667

(Note) Effective July 1, 2020, Chugai implemented a three-for-one stock split of its common stock in accordance with the resolution at the meeting of the Board of Directors held on January 21, 2020. In 2020, the number of authorized shares increased by 1,599,610,100 to 2,399,415,150 and the number of shares issued increased by 1,119,371,778 to 1,679,057,667.

Dividends

Date of resolution	Type of shares	Total dividends (millions of yen)	Dividend per share (yen)	Record date	Effective date
March 30, 2020 (Resolution of the Annual General Meeting of shareholders) *1	Common stock	50,372	92	December 31, 2019	March 31, 2020
July 27, 2020 (Board resolution) *1	Common stock	41,094	75	June 30, 2020	August 28, 2020
March 23, 2021 (Resolution of the Annual General Meeting of shareholders) *2	Common stock	49,316	30	December 31, 2020	March 24, 2021
July 26, 2021 (Board resolution) *2	Common stock	49,326	30	June 30, 2021	August 30, 2021
March 29, 2022 (Resolution of the Annual General Meeting of shareholders) *2	Common stock	75,639	46	December 31, 2021	March XX, 2022

*1. Effective July 1, 2020, Chugai implemented a three-for-one stock split of its common stock. The dividend per share presents the amount prior to the stock split.

*2. The dividend per share presents the amount after adjustments reflecting the stock split.

Own equity instruments

	Number of shares	
	2021	2020
At January 1	35,186,586	36,487,062
Issue of common stocks	-	-
Exercises of equity compensation plans	(356,400)	(1,218,900)
Purchase/Disposal of own equity instruments	6,357	16,524
Grant of restricted stock	(96,600)	(98,100)
At December 31	34,739,943	35,186,586
Book value (millions of yen)	27,161	27,507

(Note) Effective July 1, 2020, Chugai implemented a three-for-one stock split of its common stock. The amount of own equity instruments as of January 1, 2020 is calculated based on the assumption that the stock split was implemented at the beginning of the year ended December 31, 2020.

Other reserves

Fair value reserve: The fair value reserve represents the cumulative net change in the fair value of financial assets measured at fair value through OCI until the asset is sold, impaired or otherwise disposed of.

Hedging reserve: The hedging reserve represents the effective portion of the cumulative net change in the fair value of cash flow hedging instruments related to hedged transactions that have not yet occurred.

Translation reserve: The translation reserve represents the cumulative currency translation differences relating to the consolidation of foreign subsidiaries of the Group that use functional currencies other than the Japanese yen.

22. Employee benefits

Employee benefits expense in millions of yen

	2021	2020
Wages and salaries	84,631	80,742
Social security costs	10,107	9,557
Defined contribution plans	1,012	1,014
Operating expenses for defined benefit plans	4,316	4,701
Equity compensation plans	325	337
Other employee benefits	4,856	4,084
Employee benefits expense included in operating results	105,247	100,435
Net interest cost of defined benefit plans	(1)	26
Total employee benefits expense	105,246	100,461

Other employee benefits consist mainly of welfare costs.

23. Post-employment benefits plans

Post-employment benefits plans are classified as “defined contribution plans” if the Group pays fixed contributions into third-party financial institutions and will have no further legal or constructive obligation to pay further contributions. All other plans are classified as “defined benefit plans”, even if Chugai’s potential obligation is relatively minor or has a relatively remote possibility of arising.

Employees are covered by defined contribution and defined benefit plans sponsored by Group companies, most of which are classified as defined benefit plans.

A resolution was passed in the 98th Annual General Meeting of shareholders held in March 2009 to abolish the retirement benefits system for directors. In addition, a resolution was passed in the 95th Annual General Meeting of shareholders held in March 2006 to abolish the retirement benefits system for outside directors and audit & supervisory board members (including outside audit & supervisory board members).

Defined contribution plans

Defined contribution plans are funded through payments by the Group to funds administered by third parties. The Group’s expenses for these plans were ¥1,012 million (2020: ¥1,014 million).

Defined benefit plans

The Group has defined benefit plans mainly comprising a corporate pension fund and a lump-sum retirement benefit plan. Under the corporate pension fund, employees can receive a lump-sum payment based on the number of accumulated points received during their years of service. Employees with over a certain period of service can receive part of or all of the payment as certain annuity or life annuity. Under the lump-sum retirement benefit plan, employees can receive a lump-sum payment based on the number of accumulated points received during their years of service. A retirement benefit trust has been established for the lump-sum retirement benefit plan. Certain employees may be entitled to additional special retirement benefits apart from the defined benefit plans based on the conditions under which termination occurs.

The corporate pension fund and retirement benefit plan trust are independent of the Group and are funded only by payments from the Group.

A pension asset management strategy is developed to optimize expected returns and to manage risks through adopting investment strategies from a long-term perspective. For this purpose, the Group focusses on long-term objectives which are not influenced by fluctuations in short-term yields, and maintains a well-diversified portfolio.

The funding status is closely monitored at the corporate level and valuations at the balance sheet date are carried out annually. Although the financial position of the Group's pension fund is assessed to be sound, the Group has introduced risk-based contributions to prepare for risks that may arise in the future.

The defined benefit obligation is calculated using the projected unit credit method. If potential assets arise since defined benefit plans are over-funded, the recognition of pension assets is limited to the present value of any economic benefits available from refunds from the plans or reductions in future contributions to the plan.

Defined benefit plans: income statement in millions of yen

	2021	2020
Current service cost	4,316	4,701
Total operating expenses	4,316	4,701
Net interest cost of defined benefit plans	(1)	26
Total expense recognized in income statement	4,315	4,727

Defined benefit plans: funding status in millions of yen

	December 31, 2021	December 31, 2020
Fair value of plan assets	95,996	93,649
Defined benefit obligation	(97,614)	(95,440)
Over (under) funding	(1,618)	(1,791)
Defined benefit plan assets	1,327	492
Defined benefit plan liabilities	(2,945)	(2,282)
Net recognized asset (liability)	(1,618)	(1,791)

Defined benefit plans: fair value of plan assets in millions of yen

	2021	2020
At January 1	93,649	88,264
Interest income on plan assets	616	446
Remeasurements on plan assets	2,037	3,948
Currency translation effects	3	4
Employer contributions	3,342	4,510
Benefits paid – funded plans	(3,651)	(3,524)
At December 31	95,996	93,649
Composition of plan assets		
- Equity securities	16,553	15,591
- Debt securities	60,804	58,361
- Cash and cash equivalents	7,255	8,469
- Other investments	11,384	11,228
Total plan assets	95,996	93,649

Equity securities and debt securities have quoted market prices (Level 1 of fair value hierarchy).

In 2021, in addition to the provision of standard contributions, a contribution of ¥1,232 million (2020: ¥2,330 million) was made to the corporate pension fund as a risk-based contribution.

Defined benefit plans: present value of defined benefit obligation in millions of yen

	2021	2020
At January 1	95,440	95,359
Current service cost	4,316	4,701
Interest cost	616	472
Remeasurements – demographic assumption	6	681
Remeasurements – financial assumptions	1,077	(2,255)
Remeasurements – experience adjustments	113	281
Currency translation effects	19	13
Benefits paid – funded plans	(3,973)	(3,669)
Other	-	(142)
At December 31	97,614	95,440
Duration in years	15.2	15.1

Actuarial assumptions

Actuarial assumptions are unbiased and mutually compatible estimates of variables that determine the ultimate cost of providing post-employment benefits. They are set on an annual basis by the responsible departments of the Group based on advice from actuaries. Actuarial assumptions consist of demographic assumptions on matters such as mortality and employee turnover, and financial assumptions on matters such as interest rates.

Demographic assumptions: Demographic assumptions relate to mortality and employee turnover rates. Mortality rates are based on the standard mortality rate stated in the Ordinance for Enforcement of the Defined-Benefit Corporate Pension Act. Rates of employee turnover are based on historical behavior within the Group companies.

Financial assumptions: Discount rates are determined mainly with reference to interest rates on high-quality corporate bonds and reflect the period over which the obligations are to be settled.

	December 31, 2021	December 31, 2020
Discount rates (%)	0.59	0.66

Defined benefit plans: sensitivity of defined benefit obligation to actuarial assumption in millions of yen
The impact resulting from changes of actuarial assumption on the defined benefit obligation is shown in the table below. It is based on the assumption that variables other than the stated assumption used for the calculation are held constant.

	2021
Discount rates	
- 0.25% increase	(3,712)
- 0.25% decrease	3,956
Life expectancy	
- 1 year increase	2,295

Future cash flows

Based on the most recent actuarial valuations, the Group expects that employer contributions for defined benefit plans in 2022, including risk-based contributions, will be approximately ¥3,400 million.

24. Equity compensation plans

The Group operates equity-settled equity compensation plans for directors and certain employees. IFRS 2 “Share-based Payment” requires that the value of share-based payments be estimated based on the fair value at grant date and recorded as an expense over the vesting period. Effective since 2017, for the purpose of further promoting shared value with shareholders and providing an incentive to sustainably increase the Group’s corporate value, strengthening linkage between compensation and mid- to long-term business performance, a restricted stock compensation plan (the “Compensation Plan”) was introduced in place of the existing stock option compensation plans.

Expenses for equity compensation plans in millions of yen

	2021	2020
Cost of sales	2	1
Marketing and distribution	23	34
Research and development	61	84
General and administration	237	206
Total	322	325
Equity-settled plans		
- Chugai common stock options	-	-
- Chugai stock options as stock-based compensation	-	-
- Tenure-based restricted stock	228	241
- Performance-based restricted stock	94	84

Cash inflow from equity compensation plans in millions of yen

	2021	2020
Equity-settled plans		
- Exercises of Chugai common stock options	322	440
- Exercises of Chugai stock options as stock-based compensation	-	0

(1) Stock options

Chugai common stock options

The Group has issued stock acquisition rights to directors and certain employees as common stock options since 2003. Each right entitles the holder to purchase 300 Chugai shares at a specified exercise price. The rights are non-tradable and have an exercise period of around ten years after receiving the rights under the condition of approximately two years of continuous service of the holder after the grant date.

Effective July 1, 2020, Chugai implemented a three-for-one stock split of its common stock. Accordingly, the number of shares allotted per stock acquisition right is adjusted to the number that reflects the stock split.

Chugai common stock options – movement in number of rights outstanding

	2021		2020	
	Number of rights	Weighted average exercise price (yen)	Number of rights	Weighted average exercise price (yen)
Outstanding at January 1	3,824	316,132	5,386	306,166
Granted	-	-	-	-
Forfeited	-	-	-	-
Exercised	(1,188)	271,176	(1,562)	281,767
Expired	-	-	-	-
Outstanding at December 31	2,636	336,392	3,824	316,132
- of which exercisable	2,636	336,392	3,824	316,132

Chugai common stock options – terms of rights outstanding at December 31, 2021

Year of grant	Rights outstanding			Rights exercisable	
	Number outstanding	Weighted average years remaining contractual life	Weighted average exercise price (yen)	Number exercisable	Weighted average exercise price (yen)
2012	164	0.31	152,800	164	152,800
2013	245	1.32	250,000	245	250,000
2014	499	2.31	267,400	499	267,400
2015	754	3.31	400,700	754	400,700
2016	974	4.31	374,600	974	374,600
Total	2,636	3.12	336,392	2,636	336,392

Chugai stock options as stock-based compensation

The Group has issued stock acquisition rights to directors as stock options as stock-based compensation since 2009 in lieu of the retirement benefit system for directors which was abolished. Each right entitles the holder to purchase 300 Chugai shares at an exercise price of ¥300. The rights are non-tradable and have an exercise period of 30 years after receiving the rights, which may be vested upon the holder's retirement as a director of Chugai.

Effective July 1, 2020, Chugai implemented a three-for-one stock split of its common stock. Accordingly, the number of shares allotted per stock acquisition right is adjusted to the number that reflects the stock split. In addition, the weighted average exercise price is calculated based on the assumption that the stock split was implemented at the beginning of the year ended December 31, 2020.

Chugai stock options as stock-based compensation – movement in number of rights outstanding

	2021		2020	
	Number of rights	Weighted average exercise price (yen)	Number of rights	Weighted average exercise price (yen)
Outstanding at January 1	1,282	300	3,783	300
Granted	-	-	-	-
Forfeited	-	-	-	-
Exercised	-	-	(2,501)	300
Expired	-	-	-	-
Outstanding at December 31	1,282	300	1,282	300
- of which exercisable	-	-	-	-

Chugai stock options as stock-based compensation – terms of rights outstanding at December 31, 2021

Year of grant	Rights outstanding			Rights exercisable	
	Number outstanding	Weighted average years remaining contractual life	Weighted average exercise price (yen)	Number exercisable	Weighted average exercise price (yen)
2009	111	17.31	300	-	-
2010	158	18.31	300	-	-
2011	217	19.40	300	-	-
2012	242	20.31	300	-	-
2013	161	21.32	300	-	-
2014	154	22.31	300	-	-
2015	109	23.31	300	-	-
2016	130	24.31	300	-	-
Total	1,282	20.68	300	-	-

Exercise of stock acquisition rights

	2021		2020	
	Number of rights	Weighted average share price (yen)	Number of rights	Weighted average share price (yen)
Chugai common stock options	1,188	4,543	1,562	4,353
Chugai stock options as stock-based compensation	-	-	2,501	4,270

Weighted average share price is calculated based on the assumption that the stock split was implemented at the beginning of the year ended December 31, 2020.

(2) Restricted stock compensation plan

Under the Compensation Plan, the restricted stocks to be provided consist of “tenure-based restricted stock” for Eligible Directors, as well as certain employees, which requires continuous service for a certain period for Chugai, and “performance-based restricted stock” for only Eligible Directors which requires the attainment of Chugai’s mid- to long-term business performance target in addition to the aforementioned continuous service. The Eligible Directors and employees, shall make in-kind contribution of all monetary compensation claims or monetary claims to be provided by Chugai according to the Compensation Plan, and shall, in return, receive shares of common stock of Chugai that will be issued or disposed of by Chugai.

For the disposal of shares of common stocks of Chugai under the Compensation Plan, Chugai and each Eligible Directors and employees, shall make an agreement on allotment of restricted stocks including that (1) The Eligible Directors and employees, shall not transfer, create a security interest on, or otherwise dispose of the allotted shares during a certain restriction period, and (2) Chugai shall take back all or part of the allotted shares without cost in case where certain events happen.

Number of shares allotted and fair value at the grant date by year

Year		Tenure-based restricted stock	Performance-based restricted stock
2017	Number of shares allotted	224,700 shares	144,300 shares
	Fair value at the grant date	1,273 yen	970 yen
2018	Number of shares allotted	121,800 shares	59,100 shares
	Fair value at the grant date	1,800 yen	1,286 yen
2019	Number of shares allotted	88,500 shares	40,200 shares
	Fair value at the grant date	2,567 yen	1,768 yen
2020	Number of shares allotted	68,400 shares	29,700 shares
	Fair value at the grant date	3,867 yen	4,221 yen
2021	Number of shares allotted	61,000 shares	35,600 shares
	Fair value at the grant date	4,456 yen	3,183 yen

Effective July 1, 2020, Chugai implemented a three-for-one stock split of its common stock. Regarding the restricted stocks granted prior to the stock split, the number of shares allotted and the fair value at the grant date presents the amount after adjustments reflecting the stock split.

Overview of the Compensation Plan

	Tenure-based restricted stock	Performance-based restricted stock
Evaluation method	Market price	Monte Carlo simulation
Allottees	Directors of Chugai Employees of Chugai Directors of Chugai's subsidiaries Employees of Chugai's subsidiaries	Directors of Chugai
Settlement method	Equity settlement	
Transfer restriction period	3 years	
Conditions for releasing transfer restriction	On the condition that the Eligible Directors, vice presidents and employees maintain their positions continuously during the transfer restriction period, Chugai shall release the transfer restriction for all of the allotted shares at the expiration of the transfer restriction period.	On the condition that the Eligible Directors maintain their positions continuously during the transfer restriction period, Chugai shall release the transfer restriction for the number of allotted shares, which is calculated by multiplying the number of shares that the Eligible Directors obtain at the expiration of the transfer restriction period by the release rate that is determined by the growth rate on the three-year (the "Evaluation Period") Total Shareholders Return (TSR) for a peer group as a performance goal decided by the Board of Directors in advance. The release rate is applied against the number of shares that is provided at the beginning of the restriction period by multiplying the maximum coefficient of 150%, ranging from 0% to 150% separately set by Chugai's Board, and is set from 0% to 100%.

The TSR calculation formula is as follows:

$$\text{TSR} = (\text{Increase in the stock price during the Evaluation Period (B-A)} + \text{Dividends during the Evaluation Period}) \div \text{Initial stock price (A)}$$

A: Initial stock price (Average closing price for the three months prior to the start of the Evaluation Period)

B: Final stock price (Average closing price for the three months prior to the end of the Evaluation Period)

25. Earnings per share

Basic earnings per share

	2021	2020
Net income attributable to Chugai shareholders (millions of yen)	302,995	214,733
Weighted average number of common stock	1,679,057,667	1,679,057,667
Weighted average number of own equity instruments	(34,907,198)	(35,612,258)
Weighted average number of shares in issue	1,644,150,469	1,643,445,409
Basic earnings per share (yen)	184.29	130.66

(Note) Effective July 1, 2020, Chugai implemented a three-for-one stock split of its common stock in accordance with the resolution at the meeting of the Board of Directors held on January 21, 2020. Basic earnings per share is calculated based on the assumption that the stock split was implemented at the beginning of the year ended December 31, 2020.

Diluted earnings per share

	2021	2020
Net income attributable to Chugai shareholders (millions of yen)	302,995	214,733
Weighted average number of shares in issue	1,644,150,469	1,643,445,409
Adjustment for assumed exercise of equity compensation plans, where dilutive	1,078,764	1,637,632
Weighted average number of shares in issue used to calculate diluted earnings per share	1,645,229,233	1,645,083,041
Diluted earnings per share (yen)	184.17	130.53

(Note) Effective July 1, 2020, Chugai implemented a three-for-one stock split of its common stock in accordance with the resolution at the meeting of the Board of Directors held on January 21, 2020. Diluted earnings per share is calculated based on the assumption that the stock split was implemented at the beginning of the year ended December 31, 2020.

There were no rights in equity compensation plans, which are anti-dilutive, and therefore excluded from the calculation of diluted earnings per share (2020: none).

26. Statement of cash flows

Cash flows from operating activities

Cash flows from operating activities arise from the Group's primary activities including research and development, manufacturing and sales in the Pharmaceuticals business. These are calculated by the indirect method by adjusting the Group's operating profit for any operating income and expenses that are not cash flows (for example depreciation, amortization and impairment) in order to derive the cash generated from operations. Operating cash flows also include income taxes paid on all activities.

Cash generated from operations in millions of yen

	2021	2020
Net income	302,995	214,733
Financing costs	48	62
Other financial income (expense)	(76)	1,477
Other expense	2,540	1,504
Income taxes	116,390	83,455
Operating profit	421,897	301,230
Depreciation of property, plant and equipment	20,974	21,966
Depreciation of right-of-use assets	5,890	5,509
Amortization of intangible assets	4,004	2,901
Impairment of property, plant and equipment	-	296
Impairment of intangible assets	6,342	657
Operating expense for defined benefit plans	4,316	4,701
Operating expense for equity-settled equity compensation plans	322	325
Net (income) expense for provisions	2,589	171
Inventory write-downs	1,350	19
Other adjustments	2,683	2,454
Cash generated from operations	470,367	340,228

Cash flows from investing activities

Cash flows from investing activities are principally those arising from the Group's investments in property, plant and equipment and intangible assets. Cash flows connected with the Group's portfolio of marketable securities and other investments are also included, as are any interest and dividend payments received in respect of these securities and investments.

Interest and dividends received in millions of yen

	2021	2020
Interest received	131	97
Dividends received	3	3
Total	133	100

Cash flows from financing activities

Cash flows from financing activities are primarily dividend payments to Chugai shareholders and lease liabilities paid.

Significant non-cash transactions

There were no significant non-cash transactions (2020: none).

27. Risk management

(1) Financial risk management

The Group is exposed to various financial risks arising from its underlying operations and corporate finance activities. The Group's financial risk exposures are predominantly related to changes in foreign exchange rates, interest rates and equity prices as well as the creditworthiness and the solvency of the Group's counterparties.

Financial risk management within the Group is governed by policies approved by the Board of Directors of Chugai. These policies cover credit risk, liquidity risk and market risk. The policies provide guidance on risk limits, type of authorized financial instruments and monitoring procedures. Policy implementation and day-to-day risk management are carried out by the relevant functions and regular reporting on these risks is performed by the relevant finance & accounting and controlling functions within Chugai.

1) Credit risk

Accounts receivable are exposed to customer credit risk. The main accounts receivable are trade receivables. The management of trade receivables is focused on the assessment of country risk, setting of credit limits, ongoing credit evaluation and account monitoring procedures. As part of the credit risk management, sales administration departments regularly monitor the financial position of major customers by checking payment term and balances of trade receivables for each customer according to the accounting manuals to ensure early identification and mitigation of overdue balances and potential bad debts associated with the deterioration of customers' financial position.

The objective of the management of trade receivables is to sustain the growth and profitability of the Group by optimizing asset utilization while maintaining risks at an acceptable level. The Group obtains credit insurance and similar enhancements when appropriate to protect the collection of trade receivables. No material collateral was held for trade receivables (2020: none).

Of the Group's accounts receivable, trade receivables from third parties are mainly to Japanese customers, of which major customers account for 70% as of December 31, 2021.

Trade receivables: major customers in millions of yen

	December 31, 2021	December 31, 2020
Ministry of Health, Labour and Welfare	38,074	-
Alfresa Corporation	29,303	29,927
Suzuken Co., Ltd.	21,474	18,468
Mediceo Corporation	20,794	21,242
Toho Pharmaceutical Co., Ltd.	12,088	11,625
Total	121,734	81,263

Customer credit risk exposure based on accounts receivable days overdue that are within the scope of IFRS 15 in millions of yen

	Current	Overdue 1-3 months	Overdue 4-12 months	Overdue more than 1 year	Credit impaired	Total
At December 31, 2021						
Gross carrying amount	329,590	149	1	-	-	329,740
- Expected credit loss rate (%)	0	0	0	-	-	0
Allowance for doubtful accounts	(17)	(0)	-	-	-	(17)
	Current	Overdue 1-3 months	Overdue 4-12 months	Overdue more than 1 year	Credit impaired	Total
At December 31, 2020						
Gross carrying amount	234,975	115	4	-	-	235,094
- Expected credit loss rate (%)	0	0	3	-	-	0
Allowance for doubtful accounts	(12)	(0)	(0)	-	-	(13)

The expected credit loss ('ECL') rate is based on the Group's historical experience and the Group's expectation of economic conditions over the period until receivables are expected to be paid.

Derivative transactions and money market instruments are restricted to financial institutions with high credit ratings in an effort to mitigate the counterparty risks.

The maximum exposure to credit risk resulting from financial activities, without taking into account any collateral held or other credit enhancements, is equal to the carrying value of the Group's financial assets.

Financial assets with credit risks (excluding accounts receivables that result from transactions that are within the scope of IFRS 15)

Cash and cash equivalents are held with banks and financial institutions, which are predominantly rated investment grade, based on Moody's and S&P Ratings. Cash and short-term time deposits are subject to rules which limit the Group's exposure to individual financial institutions.

Investments in marketable securities (excluding equity securities) are entered into on the basis of guidelines with regard to liquidity, quality and maximum amount. As a general rule, the Group invests only in high-quality securities with adequate liquidity and with counterparties that have a credit rating of at least Baa3 from Moody's and BBB- from S&P.

Credit risk on accounts receivables that result from transactions that are not within the scope of IFRS 15 are managed based on data obtained from external sources and historical experience.

The credit risk of the counterparties with external ratings below investment grade or non-rated is closely monitored and reviewed on an individual basis.

Rating analysis (excluding accounts receivables that result from transactions that are within the scope of IFRS 15) in millions of yen

	2021		
	Total	Fair value through OCI (12-month ECL)	Amortized costs (12-month ECL)
AAA~BBB- range	495,565	199,989	295,575
Total investment grade	495,565	199,989	295,575
Below BBB- range (below investment grade)	774	774	-
Unrated	3,483	150	3,333
Total gross carrying amounts	499,822	200,914	298,909
Loss allowance	0	-	0

	2020		
	Total	Fair value through OCI (12-month ECL)	Amortized costs (12-month ECL)
AAA~BBB- range	394,944	164,988	229,956
Total investment grade	394,944	164,988	229,956
Below BBB- range (below investment grade)	771	771	-
Unrated	3,286	150	3,136
Total gross carrying amounts	399,001	165,909	233,092
Loss allowance	-	-	-

Financial assets measured at amortized cost and those at fair value through OCI (excluding equity securities) are investment grade and therefore considered to be low risk, and thus the impairment allowance is measured at 12 months expected credit losses ('ECL') with a reference to external credit ratings of the counterparties. There were no financial assets for which the Group observed a significant increase in the credit risk which would require the application of the lifetime expected credit losses impairment model. In addition, there were no material movements in the loss allowance in 2021.

2) Liquidity risk

Liquidity risk arises through a surplus of financial obligations over available financial assets due at any point in time. The Group's approach to liquidity risk is to maintain sufficient readily available reserves in order to meet its liquidity requirements at any point in time. The Group manages liquidity risks based on a cash management plan prepared and updated as appropriate by finance and accounting departments based on the reporting from each department.

Chugai is rated as highly creditable by more than one major credit rating agency. The ratings will permit efficient access to the international capital markets in the event of major financing requirements.

Contractual maturities of financial liabilities in millions of yen

	Total	0-3 months	4-6 months	7-12 months	Over 1 year
At December 31, 2021					
Accounts payable	152,266	142,496	9,730	-	40
Other current liabilities					
- Derivative financial instruments*	23,110	7,974	3,534	7,705	3,897
Total financial liabilities	175,377	150,469	13,265	7,705	3,938
At December 31, 2020					
Accounts payable	100,396	94,892	5,503	-	-
Other current liabilities					
- Derivative financial instruments*	13,699	5,709	1,610	4,165	2,215
Total financial liabilities	114,095	100,602	7,113	4,165	2,215

*Derivative financial instruments are held for risk management purposes and for which there is no intention to cancel before the maturity date.

The maturity analysis of lease liabilities is shown in Note 8.

3) Market risk

Market risk arises from changing market prices, mainly due to foreign exchange rates and interest rates, of the Group's financial assets or financial liabilities which affect the Group's net income and equity.

Foreign exchange risk: Accounts receivable and accounts payable denominated in foreign currencies are exposed to foreign exchange risk. The objective of the Group's foreign exchange risk management activities is to preserve the economic value of its current and future assets and to minimize the volatility of the Group's financial result. The Group enters into derivative transactions such as foreign exchange forward contracts to reduce the risk of foreign currency exchange fluctuations related to both assets and liabilities denominated in foreign currencies. Some of these transactions qualify as cash flow hedges at the point that the forecast transaction is expected.

When making use of derivatives for hedging foreign exchange risk on assets and liabilities denominated in foreign currencies, Chugai conducts such operations in accordance with its internal regulations and monthly reports are prepared on the balance of such transactions, valuation gains and losses, and other related matters at fair value. Consolidated subsidiaries do not utilize derivative transactions.

Sensitivity analysis: Chugai has financial instruments denominated in currencies other than its functional currency. The table below shows the impact on profit before taxes resulting from a 1% decrease of the Swiss franc, euro and US dollar against the Japanese yen, which is Chugai's functional currency. Derivatives designated as hedges are excluded from the calculation. All calculations are based on the assumption that exchange rates for other currencies are constant and there are no changes in other variables such as interest rates.

Foreign currency sensitivity analysis

	2021	2020
Year-end exchange rate (yen per each currency)		
CHF	125.95	117.10
EUR	130.31	126.89
USD	115.07	103.19
Profit before taxes (millions of yen)		
CHF	1,936	2,416
EUR	25	42
USD	(543)	(464)

(Note) Positive numbers are the amount of positive impact on profit before taxes resulting from a 1% decrease of each currency against the Japanese yen. The amounts above do not reflect the impact on Chugai's cash flows or forecast result.

The impact resulting from a 1% decrease of each currency against the Japanese yen on the financial instruments denominated in foreign currency is shown in the tables below.

	2021			2020		
	Exposure (m CHF)	Exposure (m YEN)	Impact (m YEN)	Exposure (m CHF)	Exposure (m YEN)	Impact (m YEN)
CHF						
Accounts receivable	1,331	167,659	(1,677)	1,055	123,548	(1,235)
Accounts payable	(614)	(77,352)	774	(448)	(52,467)	525
Financial non-current assets and other non-current assets	-	-	-	-	-	-
Cash and cash equivalents	27	3,339	(33)	-	-	-
Notional amounts of derivative financial instruments						
- Derivatives designated as hedges	(2,500)	(299,332)	2,993	(2,572)	(294,682)	2,947
- Derivatives not designated as hedges	98	12,042	(120)	(163)	(17,983)	180
Total	(1,659)	(193,643)	1,936	(2,128)	(241,584)	2,416
	2021			2020		
	Exposure (m EUR)	Exposure (m YEN)	Impact (m YEN)	Exposure (m EUR)	Exposure (m YEN)	Impact (m YEN)
EUR						
Accounts receivable	4	559	(6)	5	591	(6)
Accounts payable	(243)	(31,708)	317	(38)	(4,780)	48
Financial non-current assets and other non-current assets	70	9,122	(91)	-	-	-
Cash and cash equivalents	145	18,895	(189)	-	-	-
Notional amounts of derivative financial instruments						
- Derivatives designated as hedges	-	-	-	-	-	-
- Derivatives not designated as hedges	5	641	(6)	-	-	-
Total	(19)	(2,491)	25	(33)	(4,188)	42
	2021			2020		
	Exposure (m USD)	Exposure (m YEN)	Impact (m YEN)	Exposure (m USD)	Exposure (m YEN)	Impact (m YEN)
USD						
Accounts receivable	31	3,528	(35)	17	1,719	(17)
Accounts payable	(206)	(23,751)	238	(48)	(4,922)	49
Financial non-current assets and other non-current assets	-	-	-	-	-	-
Cash and cash equivalents	25	2,877	(29)	29	3,013	(30)
Notional amounts of derivative financial instruments						
- Derivatives designated as hedges	564	62,867	(629)	443	46,640	(466)
- Derivatives not designated as hedges	78	8,818	(88)	-	-	-
Total	491	54,339	(543)	441	46,450	(464)

Interest rate risk: There were no debt and loans at December 31, 2021 and given the nature of leases and the current low interest rate environment, the Group is not exposed to material interest rate risk.

(2) Financial instruments

Carrying value and fair value of financial instruments

The Group's financial instruments are mainly comprised of financial non-current assets, debt instruments included in other non-current assets, accounts receivable, marketable securities, cash and cash equivalents, derivative financial instruments included in other current assets, accounts payable, derivative financial instruments included in other current liabilities, debt and lease liabilities included in other non-current liabilities and other current liabilities. The carrying values of these financial instruments are equal to or reasonable approximates of fair values. Disclosure of the fair value of lease liabilities are not required.

Accounting classifications and fair values in millions of yen

	Financial assets measured at fair value through OCI	Fair value -hedging instruments	Financial assets measured at fair value through profit or loss	Financial assets measured at amortized cost	Financial liabilities measured at fair value through profit or loss	Other financial liabilities	Total
At December 31, 2021							
Non-current financial assets							
- Equity instrument	2,393	-	-	-	-	-	2,393
Other non-current assets							
- Debt instrument	-	-	9,383	-	-	-	9,383
Accounts receivable	-	-	-	355,081	-	-	355,081
Marketable securities							
- Debt instrument	924	-	-	-	-	-	924
- Money market instruments	199,989	-	-	-	-	-	199,989
- Time accounts over 3 months	-	-	-	3,303	-	-	3,303
Cash and cash equivalents	-	-	-	267,753	-	-	267,753
Other current assets							
- Derivative financial instruments	-	8,769	464	-	-	-	9,233
Total financial assets	203,307	8,769	9,847	626,137	-	-	848,060
Accounts payable	-	-	-	-	-	152,266	152,266
Other current liabilities							
- Derivative financial instruments	-	23,110	-	-	-	-	23,110
Total financial liabilities	-	23,110	-	-	-	152,266	175,376

	Financial assets measured at fair value through OCI	Fair value -hedging instruments	Financial assets measured at fair value through profit or loss	Financial assets measured at amortized cost	Financial liabilities measured at fair value through profit or loss	Other financial liabilities	Total
At December 31, 2020							
Non-current financial assets							
- Equity instrument	2,841	-	-	-	-	-	2,841
Other non-current assets							
- Debt instrument	-	-	188	-	-	-	188
Accounts receivable	-	-	-	253,342	-	-	253,342
Marketable securities							
- Debt instrument	5,920	-	-	-	-	-	5,920
- Money market instruments	159,989	-	-	-	-	-	159,989
- Time accounts over 3 months	-	-	-	378	-	-	378
Cash and cash equivalents	-	-	-	212,333	-	-	212,333
Other current assets							
- Derivative financial instruments	-	3,732	0	-	-	-	3,732
Total financial assets	168,750	3,732	189	466,053	-	-	638,723
Accounts payable	-	-	-	-	-	100,396	100,396
Other current liabilities							
- Derivative financial instruments	-	12,617	-	-	1,082	-	13,699
Total financial liabilities	-	12,617	-	-	1,082	100,396	114,095

Fair value hierarchy

The table below analyses financial instruments carried at fair value, by valuation method. The different levels have been defined as follows:

- Level 1 – quoted prices (unadjusted) in active markets for identical assets and liabilities.
- Level 2 – observable inputs directly or indirectly other than quoted prices in active markets for identical assets and liabilities.
- Level 3 – fair value measured using valuation method which includes unobservable inputs.

Fair value hierarchy of financial instruments in millions of yen

	Level 1	Level 2	Level 3	Total
At December 31, 2021				
Marketable securities:				
- Money market instruments	-	199,989	-	199,989
- Debt securities	774	-	150	924
Other current assets				
- Derivative financial instruments	-	9,233	-	9,233
Financial non-current assets				
- Equity instruments measured at fair value through OCI	241	-	2,152	2,393
Other non-current assets				
- Debt instrument	-	8,926	457	9,383
Financial assets recognized at fair value	1,015	218,148	2,760	221,923
Other current liabilities				
- Derivative financial instruments	-	23,110	-	23,110
Financial liabilities recognized at fair value	-	23,110	-	23,110
	Level 1	Level 2	Level 3	Total
At December 31, 2020				
Marketable securities:				
- Money market instruments	-	159,989	-	159,989
- Debt securities	5,770	-	150	5,920
Other current assets				
- Derivative financial instruments	-	3,732	-	3,732
Financial non-current assets				
- Equity instruments measured at fair value through OCI	686	-	2,154	2,841
Other non-current assets				
- Debt instrument	-	-	188	188
Financial assets recognized at fair value	6,456	163,721	2,493	172,670
Other current liabilities				
- Derivative financial instruments	-	(13,699)	-	(13,699)
Financial liabilities recognized at fair value	-	(13,699)	-	(13,699)

Level 1 financial assets consist of corporate bonds and quoted shares. Level 2 financial assets consist primarily of certificates of deposit, cash in trust, commercial paper and derivative financial instruments.

Fair values of Level 2 financial assets are measured as follows:

- Marketable securities, debt securities and derivative financial instruments are based on valuation models that use observable market data for interest rates, yield curves, foreign exchange rates and implied volatilities for similar instruments at the measurement date.

The Group recognizes transfers between levels of the fair value hierarchy as of the end of the reporting period during which the transfer has occurred. There were no significant transfers between Level 1 and Level 2 and vice versa.

Level 3 financial assets mainly consist of unquoted shares. Valuation is based on valuation method which includes unobservable inputs.

Reconciliation of financial instruments classified into level 3 in millions of yen

	Fair value through other comprehensive income	Fair value through profit or loss	Total
At January 1, 2020	2,080	113	2,192
Gains or losses	5	-	5
Purchases	240	87	327
Disposals	(21)	-	(21)
Transfers	-	-	-
Currency translation effects	-	(11)	(11)
At December 31, 2020	2,304	188	2,493
At January 1, 2021	2,304	188	2,493
Gains or losses	1	-	1
Purchases	-	248	248
Disposals	(4)	-	(4)
Transfers	-	-	-
Currency translation effects	-	21	21
At December 31, 2021	2,302	457	2,760

Derecognition of FVTOCI equity investments

The fair value at the date of derecognition, cumulative gain or loss on disposal, and dividends recognized related to investments derecognized as a result of disposal of FVTOCI equity investments during the year, are as follows:

	December 31, 2021	December 31, 2020
Fair value at the date of derecognition	28	3
Cumulative gain or loss	28	1
Dividends	0	-

These are mainly stock divestments as a result of specifically assessing matters such as the appropriateness of the shareholding, the capital efficiency in relation to the shareholding, and the rationale of the relevant transactions.

The cumulative gain or loss on disposal is before tax effect, and amounts transferred from other reserves to retained earnings is ¥21 million (2020: ¥121 million).

(3) Derivative financial instruments

Derivative financial instruments in millions of yen

Assets	December 31, 2021	December 31, 2020
Forward exchange contracts	9,233	3,732
Total	9,233	3,732
Liabilities	December 31, 2021	December 31, 2020
Forward exchange contracts	(23,110)	(13,699)
Total	(23,110)	(13,699)

Hedge accounting

Hedge effectiveness is determined at the inception of the hedge relationship, and through periodic prospective effectiveness assessments at each reporting date to ensure that an economic relationship exists between the hedged item and hedging instrument. The Group performs a qualitative assessment of the hedge effectiveness, and the Group concludes that risks being hedged for the hedged items and the hedging instruments are sufficiently aligned.

The Group manages foreign exchange rate fluctuation risks by applying hedge accounting, and an ineffective portion may occur when the volume of hedged items is lower than the hedged amount. The ineffective portion of the hedges is recognized in the income statement and included in other financial income (expense). Hedge effectiveness is measured using the hypothetical derivative method for cash flow hedges. In 2021, there was no actual ineffectiveness reported for any hedge accounting relationships, or hedging relationships for which hedge accounting is no longer applied. In 2020, there were hedging relationships to which hedge accounting was applied but was subsequently discontinued due to the forecast transactions becoming improbable.

The table below shows fair values and nominal amounts of derivative financial instruments, including a range of the timing of the nominal amounts of the hedging instruments, which are designated as hedging instruments in a cash flow hedge. At December 31, 2021, the Group has the following cash flow hedges which are designated in a qualifying hedge relationship.

Cash flow hedges

	Nominal amount	Fair value in million yen		Maturity range
		Asset	Liability	
Risk hedged:				
Foreign exchange rate fluctuations				
- Forward exchange contracts	CHF 5,400 million	6,994	(23,110)	2022-2023
	USD 564 million	1,775	-	2022
Total		8,769	(23,110)	

The Group is exposed to foreign exchange risk from transactions for inventories and other transactions in foreign currencies with foreign related parties. The Group has entered into foreign exchange forward contracts to hedge a part of foreign exchange risk. Such instruments are recorded as fair value assets of ¥(14,341) million (2020: fair value assets of ¥(8,885) million).

Reconciliation of hedging reserves in equity in millions of yen

	Forward exchange contracts
At January 1, 2021	(4,332)
Effective portion of fair value gains (losses) taken to equity	(12,479)
Transferred to income statement	17,757
Transferred to initial carrying amount of hedged items	(5,698)
Income taxes	128
At December 31, 2021	(4,624)

The present value of expected cash flows from qualifying cash flow hedges is shown in the table below.

Present value of expected cash flows of qualifying cash flow hedges in millions of yen

	Total	0-6 months	7-12 months	Over 1 Year
Year ended December 31, 2021				
Cash inflows	723,047	281,878	313,696	127,472
Cash outflows	(737,387)	(290,252)	(317,437)	(129,699)
Total cash inflow (outflow)	(14,341)	(8,373)	(3,741)	(2,227)
Year ended December 31, 2020				
Cash inflows	638,886	235,563	275,484	127,839
Cash outflows	(648,854)	(240,394)	(278,845)	(129,614)
Total cash inflow (outflow)	(9,967)	(4,831)	(3,361)	(1,775)

(4) Capital management

The Group defines the capital that it manages as the Group's total capitalization, being the equity including non-controlling interests. The Group's objectives when managing capital are:

- To safeguard the Group's ability to continue as a going concern, so that it can continue to provide benefits for patients and returns to investors.
- To provide an adequate return to investors based on the level of risk undertaken.
- To have available the necessary financial resources to allow the Group to invest in areas that may deliver future benefits for patients and returns to investors.
- To maintain sufficient financial resources to mitigate against risks and unforeseen events.

Capitalization is monitored and reported to the CFO as part of the Group's regular internal management reporting.

The Group is not subject to regulatory capital adequacy requirements.

Capital in millions of yen

	December 31, 2021	December 31, 2020
Capital and reserves attributable to Chugai shareholders	1,188,017	980,003
Equity attributable to non-controlling interests	-	-
Capitalization	1,188,017	980,003

28. Related parties

(1) Controlling shareholder

Effective October 1, 2002, the Roche Group and Chugai completed an alliance to create a leading research-driven Japanese pharmaceutical company, which was formed by the merger of Chugai and Roche's Japanese pharmaceuticals subsidiary, Nippon Roche. Through the merger, Chugai became a member of the Roche Group as the surviving company.

Chugai has entered into certain agreements with Roche, which are discussed below:

Basic Alliance Agreement: As part of the Basic Alliance Agreement signed in December 2001, Roche and Chugai entered into certain arrangements covering the future operation and governance of Chugai. Amongst other matters these cover the following areas:

- The structuring of the alliance.
- Roche's rights as a shareholder.
- Roche's rights to nominate members of Chugai's Board of Directors.
- Certain limitations to Roche's ability to buy or sell Chugai's common stock.

Chugai may issue additional shares of common stock in connection with its convertible debt and equity compensation plans, and for other purposes. If this occurs, Chugai will guarantee Roche's right to maintain its shareholding percentage in Chugai by allowing Roche to exercise its pre-emptive right or other rights.

Licensing Agreements: Under the Japan Umbrella Rights Agreement signed in December 2001, Chugai has exclusive rights to market Roche's pharmaceutical products in Japan. Chugai also has right of first refusal on the development and marketing in Japan of all development compounds advanced by Roche.

The Rest of the World Umbrella Rights Agreement (excluding Japan and South Korea) signed in May 2002 was revised and the Amended and Restated Rest of the World Umbrella Rights Agreement (excluding Japan, South Korea and Taiwan) was signed in August 2014. Under this Agreement, Roche has the right of first refusal on the development and marketing of Chugai's development compounds in markets outside Japan, excluding South Korea and Taiwan.

Further to these agreements, Roche and Chugai have signed a series of separate agreements for certain specific products. Depending on the specific circumstances and the terms of the agreement, this may result in payments on an arm's length basis between Roche and Chugai, for any or all of the following matters:

- Upfront payments, if a right of first refusal to license a product is exercised.
- Milestone payments, dependent upon the achievement of agreed performance targets.
- Royalties on future product sales.

These specific product agreements may also cover the manufacture and supply etc. of the respective products to meet the other party's clinical and/or commercial requirements on an arm's length basis.

Research Collaboration Agreements: Roche and Chugai have entered into research collaboration agreements in the areas of small-molecule synthetic drug research and biotechnology-based drug discovery.

Dividends: The dividends distributed to Roche by Chugai in respect to its holdings of Chugai shares totaled ¥60,340 million (2020: ¥55,982 million).

(2) Material transactions and balances with related parties

Transactions with F. Hoffmann-La Roche in millions of yen

	2021	2020
Revenues	450,217	347,583
Purchases	219,314	137,155

Balances with F. Hoffmann-La Roche in millions of yen

	December 31, 2021	December 31, 2020
Accounts receivable	172,112	127,475
Trade accounts payable	81,648	47,201

In the year ended December 31, 2021, the information of transactions with Genentech, Inc. is not stated due to the decreased significance of purchases. In the year ended December 31, 2020, purchases and trade accounts payable that arose from the transactions with Genentech, Inc. were ¥50,435 million and ¥2,756 million, respectively.

(3) Remuneration of key management personnel

Remuneration of members of the Board and audit & supervisory board members in millions of yen

	2021	2020
Board of directors		
- Regular remuneration	274	258
- Bonuses	169	120
- Tenure-based restricted stock compensation plan	78	55
- Performance-based restricted stock compensation plan	94	84
Total	615	516
Audit & supervisory board members		
- Regular remuneration	99	99
Total	99	99

29. Subsidiaries

Subsidiaries	Country of incorporation	Equity interest %	
		2021	2020
Consolidated subsidiaries			
Chugai Research Institute for Medical Science, Inc.	Japan	100	100
Chugai Clinical Research Center Co., Ltd.	Japan	100	100
Chugai Business Solution Co., Ltd.	Japan	100	100
Medical Culture, Inc.	Japan	-	100
Chugai Distribution Co., Ltd.	Japan	-	100
Chugai Pharma Manufacturing Co., Ltd.	Japan	100	100
Forerunner Pharma Research Co., Ltd.	Japan	-	100
Chugai Pharma USA, Inc.	United States	100	100
Chugai Pharma Europe Ltd.	United Kingdom	100	100
Chugai Pharma U.K. Ltd.	United Kingdom	100	100
Chugai Pharma Germany GmbH	Germany	100	100
Chugai Pharma France S.A.S.	France	100	100
Chugai Pharma Europe Logistics S.A.S.	France	100	100
Chugai Pharma Taiwan Ltd.	Taiwan	100	100
Chugai Pharma Science (Beijing) Co., Ltd.	China	100	100
Chugai Pharma China Co., Ltd.	China	100	100
Chugai Pharma Technology Taizhou Co., Ltd.	China	100	100
Chugai Pharmabody Research Pte. Ltd.	Singapore	100	100

(Note) Chugai Business Support Co., Ltd. and Medical Culture, Inc. were integrated in January 2021 with the former as the surviving company, and the trade name was changed to Chugai Business Solution Co., Ltd. Chugai Pharma Science (Beijing) Co., Ltd. and Chugai Pharma China Co., Ltd. will be integrated in April 2022. Chugai Distribution Co., Ltd. and Forerunner Pharma Research Co., Ltd. were liquidated in July 2021 and October 2021, respectively.

30. Subsequent events

(Settlement of Patent Infringement Litigation)

Chugai announced that it entered into settlement agreement with Alexion Pharmaceuticals, Inc. (“Alexion”) on March 17 relating to patent infringement litigations filed by Chugai against Alexion’s anti-C5 antibody ALXN1210 product ULTOMIRIS® (ravulizumab). In accordance with this settlement agreement, Chugai together with Alexion subsequently withdrew the patent infringement proceedings.

As a result of the settlement reached between the two companies, Chugai expects to receive a lump-sum payment of \$775 million from Alexion.

Additional information

This additional information is provided for the benefit of readers and does not form part of the consolidated financial statements.

1. Significant legal cases

At December 31, 2021, the Group is involved in the following significant legal cases for which the outcome cannot be determined at this time, but for which the Group assesses that the possibility of any settlement to be remote:

(1) Patent infringement lawsuit (in US) regarding Emicizumab

Baxalta Incorporated and Baxalta GmbH (collectively “Baxalta”) filed a lawsuit against Chugai and Genentech Inc. (“Genentech”) in the US District Court for the District of Delaware (“Court”) on May 4, 2017 (the date of the complaint, US time hereafter), alleging that Genentech and Chugai manufacture, use, sell, offer for sale or import emicizumab (development code name: ACE910) into the United States, which would infringe Baxalta’s US patent No. 7,033,590 and seeking for patent infringement judgment, injunctive and monetary relief and attorney fees on against manufacture, usage, transfer, exportation and offer of any transfer regarding emicizumab (development code name: ACE910) alleging emicizumab is infringing one of its Japanese patents (patent number 4313531). Baxalta filed a stipulation of dismissal with prejudice regarding Baxalta’s claims against Chugai with the Court on September 13, 2018, and the Court issued an order dismissing Chugai from this lawsuit on September 19, 2018. The Court also entered the judgment in favor of Genentech on February 1, 2019. Given this, Baxalta appealed to the United States Court of Appeals for the Federal Circuit (“CAFC”) on February 8, 2019. CAFC reversed the judgment of the Court and remanded the case back to the Court on August 27, 2020. Subsequently the Court issued a summary judgement that patent-in-suit is invalid on January 13, 2022, Baxalta appealed the Court decision again to the CAFC on February 8, 2022.

(2) Patent infringement lawsuit (in US) against Alexion

Chugai alleges that the anti-C5 antibody ALXN1210 (ravulizumab) product, an investigational drug developed by Alexion Pharmaceuticals, Inc. (“Alexion”), infringes one of its U.S. patents (U.S. Patent No. 9,890,377) relating to its proprietary antibody engineering technology. Thus, Chugai filed a patent infringement lawsuit against Alexion at the United States District Court for the District of Delaware on November 15, 2018 (the date of the complaint) requesting a judgment that the ALXN1210 product infringes Chugai’s U.S. patent and injunctive relief precluding manufacturing and selling of the ALXN1210 product within the U.S. Chugai filed another patent infringement lawsuit against Alexion at the United States District Court for the District of Delaware on November 12, 2019 (the date of the complaint) requesting a judgment that the ALXN1210 product infringes Chugai’s U.S. patent (U.S. Patent No. 10, 472,623) and injunctive relief precluding manufacturing and selling of the ALXN1210 product within the U.S. Chugai entered into a settlement agreement with Alexion on March 17, 2022, subsequently withdrew the patent infringement lawsuit against Alexion.

(3) Patent infringement lawsuit (in Japan) against Alexion

Chugai alleges that the anti-C5 antibody ALXN1210 (ravulizumab), a product marketed by Alexion Pharma Godo Kaisha (“Alexion Pharma”), infringes some of its Japan patents (Patent No. 4954326 and No. 6417431) relating to its proprietary antibody engineering technology. Thus, Chugai filed a patent infringement lawsuit against Alexion Pharma at the Tokyo District Court on December 5, 2018 (the date of the complaint) requesting a judgment that the ALXN1210 product infringes Chugai’s Japan patent and injunctive relief precluding manufacturing and selling of the ALXN1210 product in Japan. Chugai entered into a settlement agreement with Alexion on March 17, 2022, subsequently withdrew the patent infringement lawsuit against Alexion Pharma.

(4) Patent infringement lawsuit (in US) against Fresenius Kabi

Fresenius Kabi USA, LLC, in concert with Fresenius Kabi Oncology Limited and Fresenius SE & Co. KGaA (collectively “Fresenius”), filed an Abbreviated New Drug Application (“ANDA”) for approval of a generic version of Alecensa to the U.S. Food and Drug Administration. Under the framework of the Drug Price Competition and Patent Term Restoration Act (known as Hatch-Waxman Act), Chugai, Roche and Genentech filed a patent infringement lawsuit against Fresenius at the United States District Court for the District of Delaware on March 19, 2020 (the date of the complaint) alleging submission of ANDA infringed Chugai’s U.S. Patents (U.S. Patent Nos. 9,126,931; 9,440,922; 9,365,514 and 10,350,214).



Independent auditor's report

To the Board of Directors of Chugai Pharmaceutical Co., Ltd.:

Opinion

We have audited the accompanying consolidated financial statements of Chugai Pharmaceutical Co., Ltd. and its consolidated subsidiaries (collectively referred to as "the Group") which comprise the consolidated balance sheet as at December 31, 2021, and the consolidated income statement, statement of comprehensive income, statement of cash flows and statement of changes in equity for the year then ended, and notes to consolidated financial statements.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at December 31, 2021, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRS).

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 our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Appropriateness of Chugai's judgement as to whether an impairment loss should be recognized on product intangible assets not available for use

The key audit matter	How the matter was addressed in our audit
As stated in Note 9. "Intangible assets" to the Consolidated Financial Statements, included in Intangible assets of ¥21,974 million reported on the Consolidated balance sheet of Chugai Pharmaceutical Co., Ltd. and its consolidated subsidiaries ("Chugai"), were Product intangibles not available for use of	The primary procedures we performed to assess the appropriateness of Chugai's judgement as to whether an impairment loss should be recognized on product intangible assets not available for use included the following: (1) Internal control testing

<p>¥9,704 million, which represented approximately 0.6% of total assets.</p> <p>As described in Note 1. “General accounting principles and significant accounting policies, (3) Accounting policies” to the Consolidated Financial Statements, under the heading “Impairment of property, plant and equipment, right-of-use assets and intangible assets,” intangible assets that are not yet available for use are tested for impairment annually. When the recoverable amount of an asset is less than its carrying value, the carrying value is reduced to its recoverable amount and this reduction is reported as an impairment loss.</p> <p>These assets mostly represent in-process research and development resources obtained through in-licensing arrangements or separate asset purchases and the initial business feasibility assessments were performed at the time of entering into the arrangements. However, intensifying competition in research and development has made the creation of new drugs more challenging and the cost of research and development has increased significantly. Therefore, it may not be possible to bring all intangible assets smoothly through to market from the development stage, and Chugai may have to abandon development in some cases. Accordingly, management’s judgement regarding productization of projects had a significant effect on the determination as to whether an impairment loss should be recognized on product intangible assets not available for use.</p> <p>We, therefore, determined that our assessment of the appropriateness of Chugai’s judgement as to whether an impairment loss should be recognized on product intangible assets not available for use was one of the most significant in our audit of the consolidated financial statements for the current fiscal year, and accordingly, a key audit matter.</p>	<p>We tested the design and operating effectiveness of certain of Chugai’s internal controls relevant to the determination of impairment of intangible assets not available for use. In this assessment, we focused on the controls that included consideration of the current progress of development projects in the research and development departments and changes in the product environment in determination of impairment.</p> <p>(2) Assessment of the appropriateness of management’s judgement as to whether an impairment loss should be recognized</p> <p>In order to assess the appropriateness of management’s judgement as to whether an impairment loss should be recognized, regarding the expectations for future development of the projects, which was used as the basis for determination of impairment, for selected projects that were over a certain threshold, among other procedures, we:</p> <ul style="list-style-type: none"> ● inquired of the personnel in the research and development departments responsible for the projects about changes in product environment, such as any delay in progress of development projects, results of the clinical trials for target indications, any increase in research and development expenses, launch or market penetration of competing products and generics/biosimilars after the initial business feasibility assessment, and emergence of new technologies and therapeutics. In addition, we inspected the materials related to the portfolio management committee in which it reviewed whether to continue or discontinue certain research and development activities and whether the business feasibility assessment materials needed revision or not; and ● compared the original achievement schedules of planned milestones in the initial business feasibility assessment with the achievement status as of the fiscal year end to determine whether a significant deviation exists indicating an impairment loss should be recognized.
Appropriateness of Chugai’s judgement as to whether an additional adjustment should be recognized regarding certain transactions with F. Hoffman-La Roche Ltd.	
The key audit matter	How the matter was addressed in our audit
<p>As described in Note 5. “Other expense” to</p>	<p>The primary procedures we performed to assess whether</p>

the Consolidated Financial Statements, adjustments from transfer pricing taxation of ¥2,540 million covering certain transactions with F. Hoffman-La Roche Ltd. (“Roche”) were recognized as Other expense in the consolidated income statement of Chugai.

Chugai filed an Advance Pricing Agreement (APA) covering certain transactions with Roche to the Japanese and Swiss tax authorities. As a result, Chugai received a notice of agreement from both tax authorities which includes the instruction that ① the taxable income of Chugai shall be decreased by a certain amount and that of Roche shall be increased by the same amount in each fiscal year from 2016 to 2020, and ② if necessary, additional adjustments to the accounts shall be made in 2021.

The adjustments related to transfer pricing taxation with the receipt of the notice of agreement resulted in the transfer of a part of the deducted amount of income taxes from Chugai to Roche in accordance with the license agreement between Chugai and Roche. When calculating income taxes and adjustments in transfer pricing taxation in the consolidated financial statements, based on management’s judgement that additional adjustment is not necessary in 2021 as described in ② above, Chugai only recognized a decrease by a certain amount from the taxable income as described in ① above. Whether additional adjustments are necessary is determined based on the accumulated Operating Margin (“OM”) ratio until 2021, therefore appropriate recognition of covered transactions requires a high degree of expertise in taxation. In addition, as it is practically difficult to close the accounting books based on actual amounts, management’s forecast of sales and the OM ratio for 2021 had a significant effect on the estimation of adjustment on transfer pricing taxation.

We, therefore, determined that our assessment of the appropriateness of Chugai’s judgement as to whether an additional adjustment should be recognized regarding certain transactions with Roche was one of the most significant in our audit of the consolidated financial statements for the current fiscal year, and accordingly, a key audit matter.

Chugai’s judgment as to whether an additional adjustment should be recognized regarding certain transactions with Roche was appropriate included the following:

(1) Internal control testing

We tested the design and operating effectiveness of certain of Chugai’s internal controls relevant to the estimation of income taxes and adjustment on transfer pricing taxation. In this assessment, we focused on whether the control personnel independent of the finance and accounting department monitor whether the forecast of the OM ratio of the covered transactions subject to the APA fall inside the arm’s length range.

(2) Assessment whether the judgement as to additional adjustment was appropriate

In order to assess the judgement of whether an additional adjustment based on the accumulated OM ratio until 2021 was necessary and reasonable, among other procedures, we:

- inspected the materials for the calculation of accumulated OM ratio and inquired of a responsible person of the finance and accounting department regarding the aggregation method of covered transactions;
- assessed the appropriateness of recognition of covered transactions by engaging tax professionals within the local network firm, in light of the scope of the transactions subject to the APA and based on interpretations of the tax laws by local tax authorities;
- assessed the reasonableness of the estimated forecast of sales and the OM ratio of covered transactions in 2021, which was a part of the estimation of the accumulated OM ratio until 2021 by inquiring of a responsible person of the finance and accounting department, and by comparing actual results achieved with the past business plan; and
- assessed the reasonableness of management’s judgment that no adjustment was required at December 31, 2021, by inspecting the materials for the calculation of actual sales and OM ratio for 2021 aggregated between the fiscal year end and the audit report date.

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

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with IFRS, 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, disclosing, as applicable, matters related to going concern in accordance with IFRS 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.

Corporate auditors and the board of corporate auditors are responsible for overseeing the directors' performance of their duties with regard to the design, implementation and maintenance of 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. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with auditing standards generally accepted in Japan will always detect a material misstatement when it exists. 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 our 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. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, while the objective of the audit is not to express 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 whether the presentation and disclosures in the consolidated financial statements are in accordance with IFRS, 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.

- 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 corporate auditors and the board of corporate auditors regarding, among other matters, the planned scope and timing of the audit, significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide corporate auditors and the board of corporate auditors with a statement that we have complied with relevant ethical requirements regarding independence, and 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 corporate auditors and the board of corporate auditors we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Interest required to be disclosed by the Certified Public Accountants Act of Japan

We 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.

Akihiro Ohtani

Designated Engagement Partner

Certified Public Accountant

Terukazu Nagamine

Designated Engagement Partner

Certified Public Accountant

Yujiro Kitamura

Designated Engagement Partner

Certified Public Accountant

KPMG AZSA LLC

Tokyo Office, Japan

March 29, 2022

Notes to the Reader of Independent Auditor's Report:

This is a copy of the Independent Auditor's Report and the original copies are kept separately by the Company and KPMG AZSA LLC.