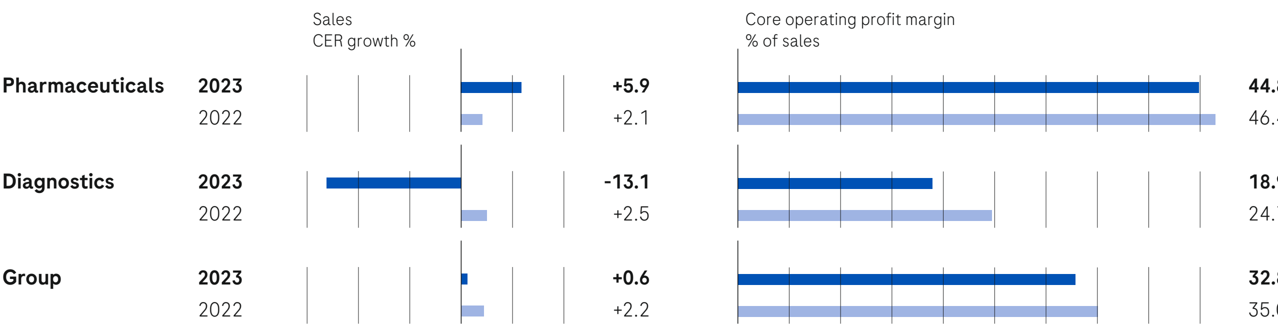
Roche

Finance Report 2023

Finance in Brief

Key results



	2023 (CHF m)	2022 (CHF m)	% change (CHF)	% change (CER)	% of sales 2023	% of sales 2022
IFRS results						
Sales	58,716	63,281	–7	+1		
Operating profit	15,395	17,476	–12	+3	26.2	27.6
Net income	12,358	13,531	–9	+7	21.0	21.4
Net income attributable to Roche shareholders	11,498	12,421	–7	+9	19.6	19.6
Diluted EPS (CHF)	14.31	15.37	–7	+11		
Dividend per share (CHF)	9.60 [a]	9.50	+1			
Core results						
Research and development	13,237	13,255	0	+5	22.5	20.9
Core operating profit	19,240	22,173	–13	–1	32.8	35.0
Core EPS (CHF)	18.57	20.30	–9	+6		
Free cash flow						
Operating free cash flow	15,768	17,673	–11	+4	26.9	27.9
Free cash flow	11,288	13,041	–13	+4	19.2	20.6

	2023 (CHF m)	2022 (CHF m)	% change (CHF)	% change (CER)
Net debt	(18,699)	(15,584)	+20	+26
Capitalisation	62,472	57,366	+9	+19
– Debt	29,209	25,351	+15	+24
– Equity	33,263	32,015	+4	+15

a) Proposed by the Board of Directors.

CER (Constant Exchange Rates): The percentage changes at constant exchange rates are calculated using simulations by reconsolidating both the 2023 and 2022 results at constant exchange rates (the average rates for the year ended 31 December 2022). For the definition of CER see page 180.

Core results and Core EPS (earnings per share): These exclude non-core items such as global restructuring plans and amortisation and impairment of goodwill and intangible assets. This allows an assessment of both the actual results and the underlying performance of the business. A full income statement for the Group and the operating results of the divisions are shown on both an IFRS and core basis. The core concept is fully described on pages 172–176 and reconciliations between the IFRS and core results are given there.

Free cash flow is used to assess the Group's ability to generate the cash required to conduct and maintain its operations. It also indicates the Group's ability to generate cash to finance dividend payments, to repay debt and to undertake merger and acquisition activities. The free cash flow concept is used in the internal management of the business. The free cash flow concept is fully described on pages 176–178 and reconciliations between the IFRS cash flow and free cash flow are given there.

Effective 1 January 2023, the Group has made certain presentational and cost allocation changes to the income statement. The comparative information for 2022 has been restated accordingly. Details are given on page 45.

Finance – 2023 in Brief

Roche in 2023

The **Roche Group** sales grew by 1% at constant exchange rates (CER). IFRS net income increased by 7% (CER) and core earnings per share increased by 6% (CER). The **appreciation of the Swiss franc** had a significant adverse impact on the results expressed in Swiss francs.

Sales

Group sales were CHF 58.7 billion, an increase of 1% at CER (7% decrease in CHF terms). **Pharmaceuticals sales** increased by 6% (CER) driven by the growing demand for newer medicines, which more than offset the negative impact from biosimilar competition. **Diagnostics sales** declined by 13% (CER) following the sharp decline in demand for COVID-19-related tests, while sales in the base business increased by 7%.

Operating results

Core operating profit decreased by 1% (CER) to CHF 19.2 billion (13% decrease in CHF terms) due to lower COVID-19-related sales, continued investment into **research and development,** where expenditure grew by 5% (CER) to CHF 13.2 billion on a core basis, and the base effect of the Ultomiris patent settlement in 2022. The Telavant asset acquisition was completed for CHF 6.2 billion. **IFRS operating results** were 3% higher (CER) and included non-core expenses, notably for restructuring costs and goodwill and intangible asset impairment, which were lower in total than in 2022.

Non-operating results

Financing costs (IFRS) increased by 59% at CER to CHF 1.0 billion due to the issuance of new debt as well as an increase in interest rates. **Income tax expenses** (IFRS) decreased by 27% at CER to CHF 1.7 billion due to the resolution of several tax disputes. The effective core tax rate for 2023 decreased to 11.9%.

Net income

IFRS net income was CHF 12.4 billion, an increase of 7% at CER (decrease of 9% in CHF terms). **Core earnings per share** increased by 6% at CER to CHF 18.57 (decrease of 9% in CHF terms). The Core EPS growth included a positive impact of approximately 5 percentage points from the resolution of tax disputes in 2023.

Cash flows

Operating free cash flow was CHF 15.8 billion, an increase of 4% at CER (decrease of 11% in CHF terms) and **Free cash flow** increased by 4% at CER (decrease of 13% in CHF terms) to CHF 11.3 billion, with both reflecting the underlying cash generation of the business.

Financial position

Net working capital increased by 6% at CER (decrease of 8% in CHF terms) driven by higher trade receivables in both divisions. **Net debt** increased by CHF 3.1 billion to CHF 18.7 billion due primarily to the payments for the Telavant asset acquisition. **Credit ratings** remained high: AA by Standard & Poor's, Aa2 by Moody's and AA by Fitch.

Shareholder return

A proposal will be made to **increase dividends** by 1% to CHF 9.60 per share and non-voting equity security. This would represent the 37th consecutive year of dividend growth and would result in a pay-out ratio of 51.7%, subject to AGM approval. **Total Shareholder Return** (TSR) was minus 14.4% representing the combined performance of share and non-voting equity security.

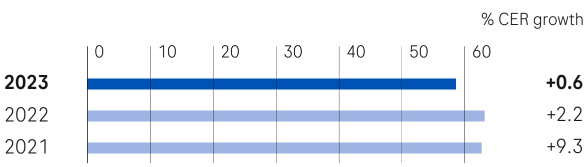
Roche Group

Roche Holding Ltd, Basel

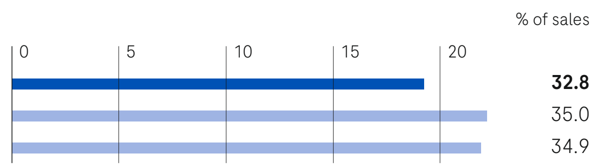
Financial Review

Roche Group results

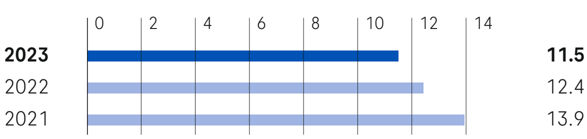
Sales in billions of CHF



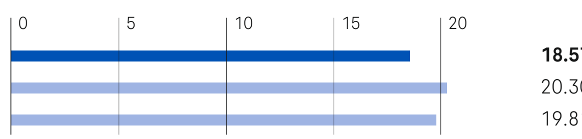
Core operating profit in billions of CHF



Net income attributable to Roche shareholders in billions of CHF



Core EPS in CHF



In 2023 the Roche Group reported sales growth of 1% and a core operating profit decline of 1% at CER. IFRS net income increased by 7% while Core EPS increased by 6% at CER. The appreciation of the Swiss franc against many currencies had an adverse net impact on the results expressed in Swiss francs of 8 percentage points on sales, 12 percentage points on core operating profit, 15 percentage points on Core EPS and 16 percentage points on IFRS net income.

Sales in the Pharmaceuticals Division were CHF 44.6 billion (2022: CHF 45.6 billion), an increase of 6% at CER, driven by growing demand for Vabysmo, Ocrevus, Hemlibra, Polivy and Phesgo, which together contributed an additional CHF 4.3 billion (CER) of sales. Sales of MabThera/Rituxan, Herceptin and Avastin decreased by a combined CHF 1.1 billion (CER), as the impact of biosimilar competition continued, but to a lower extent. Sales of the COVID-19 medicine Ronapreve fell by CHF 1.1 billion (CER) due to the evolving COVID-19 situation.

The Diagnostics Division reported sales of CHF 14.1 billion, a decline of 13% at CER due to lower sales of COVID-19-related tests. The division's base business grew by 7% at CER and across all regions, with immunodiagnostics, particularly cardiac tests, being the main growth driver. The Diagnostics Division's portfolio of COVID-19 tests generated sales of CHF 0.8 billion in 2023 compared to CHF 4.1 billion in 2022, a decline of 80% at CER.

Divisional operating results for 2023

	Pharmaceuticals (CHF m)	Diagnostics (CHF m)	Corporate (CHF m)	Group (CHF m)
Sales	44,612	14,104	–	58,716
Core operating profit	19,989	2,668	(3,417)	19,240
– Margin, % of sales	44.8	18.9	–	32.8
Operating profit	17,132	2,171	(3,908)	15,395
– Margin, % of sales	38.4	15.4	–	26.2
Operating free cash flow	17,728	1,677	(3,637)	15,768
– Margin, % of sales	39.7	11.9	–	26.9

Divisional operating results – Development of results compared to 2022

	Pharmaceuticals	Diagnostics	Corporate	Group
Sales				
– % change at CER	+6	−13	–	+1
Core operating profit				
– % change at CER	+5	−24	+5	−1
– Margin: percentage point change	−0.4	−3.2	–	−0.5
Operating profit				
– % change at CER	+14	−32	+16	+3
– Margin: percentage point change	+3.0	−5.2	–	+0.6
Operating free cash flow				
– % change at CER	+12	−35	+10	+4
– Margin: percentage point change	+2.3	−4.8	–	+0.9

The core operating profit decline of 1% at CER reflected the continued investments in research and development and the base effect of the Ultomiris patent settlement in 2022 in the Pharmaceuticals Division and the decrease in COVID-19-related sales in the Diagnostics Division.

The Pharmaceuticals Division's core operating profit increased by 5% at CER, which was below the sales increase of 6%, due to the CHF 0.7 billion of income from the Ultomiris patent settlement in 2022. Cost of sales decreased by 1%, despite the increase in sales. Underlying manufacturing costs were broadly in line with the increase in sales volumes, while being impacted by factors related to COVID-19 products. Higher royalty expenses were offset by lower collaboration and profit-share costs. Research and development costs were CHF 11.5 billion, an increase of 6%. Oncology remained the primary area of research and development and the main driver of the growth. Neuroscience, ophthalmology and immunology also represented significant areas of spending. In research and early-stage development, the increase in costs was mostly driven by investments in computational biology. In addition, depreciation expenses for new research facilities contributed to the growth in costs. Selling, general and administration costs increased by 6% due to marketing and distribution costs for ongoing launches, especially of Vabysmo. Other operating income (expense) was CHF 0.8 billion and included CHF 0.6 billion gains from the disposal of products.

In the Diagnostics Division, core operating profit decreased by 24% at CER to CHF 2.7 billion, driven by the sharp decline of COVID-19-related sales. Cost of sales decreased by 15%, exceeding the 13% decrease in sales, because of a mix effect from the lower sales volumes of SARS-CoV-2 Rapid Antigen tests. Research and development costs decreased by 1% following targeted productivity measures. Investments in digital solutions and sequencing remained significant areas of investment. Selling, general and administration costs remained stable with lower distribution costs related to SARS-CoV-2 Rapid Antigen tests being partly offset by higher inventory write-offs.

In the overall Group results the decrease in cost of sales as a percentage of sales was driven by the improved gross margins within both divisions and also by a divisional mix effect from the increased sales of the Pharmaceuticals Division and the lower COVID-19-related sales in the Diagnostics Division, coupled with the different gross margins of the two divisions. The Group core operating profit was 1% lower at CER (13% lower in CHF).

The increase in IFRS operating profit of 14% (CER) in the Pharmaceuticals Division was above the 5% growth in core operating profit, due to lower charges for impairment of goodwill and intangible assets. In the Diagnostics Division, IFRS operating profit decreased by 32% (CER), driven by the 24% decline in core operating profit and higher expenses from global restructuring plans resulting from various productivity initiatives launched in 2023. The 2023 results for the Group include CHF 2.0 billion for restructuring costs, CHF 1.2 billion for goodwill and intangible asset impairment charges and CHF 0.7 billion for intangible asset amortisation charges. Group IFRS operating profit was 3% higher at CER (12% lower in CHF).

Financing costs increased by 59% (IFRS basis at CER) to CHF 1.0 billion mainly due to additional interest expenses from new debt as well as increases in interest rates which affected short-term borrowing costs. Other financial income (expense) was a net expense of CHF 0.3 billion, with the major item being net foreign exchange losses and losses on net monetary position in hyperinflationary economies following the devaluation in Argentina in December 2023. The Group's effective core tax rate decreased to 11.9% compared to 16.4% in 2022. The decrease was mainly due to the impact from the resolution of several tax disputes which reduced the Group's effective core tax rate by 4.3 percentage points in 2023 compared to 1.5 percentage points in 2022. The lower percentage of core profit contribution coming from tax jurisdictions with tax rates higher than the Group's average tax rate further reduced the Group's effective core tax rate.

Net income increased by 7% at CER (decrease of 9% in CHF) on an IFRS basis to CHF 12.4 billion while Core EPS increased by 6% at CER (decrease of 9% in CHF) to CHF 18.57. The base effect of the Ultomiris patent settlement income in 2022 had a dilutive impact, net of tax, of approximately 2 percentage points on Core EPS growth. The growth of Core EPS also included a positive impact of approximately 5 percentage points from the resolution of tax disputes in 2023. The amount of net income attributable to non-controlling interests decreased by 15% on both an IFRS and core basis, due to the base effect of the Ultomiris patent settlement income at Chugai in 2022.

Operating free cash flow was CHF 15.8 billion, an increase of 4% at CER (decrease of 11% in CHF). The free cash flow was CHF 11.3 billion, an increase of 4% at CER (decrease of 13% in CHF). These both reflected the underlying cash generation of the business. Other factors in the operating free cash flow included the increase in net working capital being lower than in 2022, partly offset by higher capital expenditure. The free cash flow also included increased interest payments and lower tax payments.

Income statement

	2023 (CHF m)	2022 (CHF m)	% change (CHF)	% change (CER)
IFRS results				
Sales	58,716	63,281	–7	+1
Other revenue	1,725	2,533	–32	–27
Revenue	**60,441**	**65,814**	**–8**	**0**
Cost of sales	(16,357)	(19,737)	–17	–13
Research and development	(14,200)	(15,225)	–7	–2
Selling, general and administration	(14,881)	(14,201)	+5	+11
Other operating income (expense)	392	825	–52	–51
Operating profit	**15,395**	**17,476**	**–12**	**+3**
Financing costs	(996)	(665)	+50	+59
Other financial income (expense)	(320)	(484)	–34	–24
Profit before taxes	**14,079**	**16,327**	**–14**	**+1**
Income taxes	(1,721)	(2,796)	–38	–27
Net income	**12,358**	**13,531**	**–9**	**+7**
Attributable to				
– Roche shareholders	11,498	12,421	–7	+9
– Non-controlling interests	860	1,110	–23	–15
EPS – Basic (CHF)	14.40	15.52	–7	+11
EPS – Diluted (CHF)	14.31	15.37	–7	+11
Core results [a]				
Sales	58,716	63,281	–7	+1
Other revenue	1,725	2,533	–32	–27
Revenue	**60,441**	**65,814**	**–8**	**0**
Cost of sales	(15,251)	(17,415)	–12	–8
Research and development	(13,237)	(13,255)	0	+5
Selling, general and administration	(13,518)	(13,767)	–2	+4
Other operating income (expense)	805	796	+1	+6
Operating profit	**19,240**	**22,173**	**–13**	**–1**
Financing costs	(980)	(686)	+43	+52
Other financial income (expense)	(320)	(528)	–39	–30
Profit before taxes	**17,940**	**20,959**	**–14**	**–2**
Income taxes	(2,136)	(3,429)	–38	–28
Net income	**15,804**	**17,530**	**–10**	**+3**
Attributable to				
– Roche shareholders	14,927	16,401	–9	+5
– Non-controlling interests	877	1,129	–22	–15
Core EPS – Basic (CHF)	18.69	20.49	–9	+6
Core EPS – Diluted (CHF)	18.57	20.30	–9	+6

a) See pages 172–176 for the definition of core results and Core EPS.

Effective 1 January 2023, the Group has made certain presentational and cost allocation changes to the income statement. The comparative information for 2022 has been restated accordingly. Details are given on page 45.

Competition from biosimilar and generic medicines

The Group's pharmaceutical products are generally protected by patent rights, which are intended to provide the Group with exclusive marketing rights in various countries. However, patent rights are of varying scope and duration, and the Group may be required to enter into costly litigation to enforce its patent and other intellectual property rights. Loss of market exclusivity for one or more major products – either due to patent expiration, challenges from generic medicines, biosimilars and non-comparable biologics or other reasons – could have a material adverse effect on the Group's business, results of operations or financial condition. The introduction of a generic, biosimilar or non-comparable biologic version of the same or a similar medicine usually results in a significant reduction in net sales for the relevant product, as other manufacturers typically offer their versions at lower prices.

Patents and their expiry are, and always have been, an integral part of the Group's business model and future growth will remain driven by innovation. The latest information from clinical studies is included in the Annual Report and details of the Group's product development portfolio are available for download at https://www.roche.com/solutions/pipeline

MabThera/Rituxan, Herceptin and Avastin. The Group's basic, primary patents for these three products have expired worldwide. Sales, including regional breakdowns, for MabThera/Rituxan, Herceptin and Avastin are disclosed in the Pharmaceuticals Division's operating results and are summarised in the table below. The year-on-year movements were also driven by regular price and volume changes. Biosimilar competition is only one factor in the overall picture.

Total MabThera/Rituxan, Herceptin and Avastin sales

	2023 (CHF m)	2022 (CHF m)	% change (CER)	% divisional sales (2023)	% divisional sales (2022)
United States	1,802	2,426	–21	4.0	5.3
Europe	631	819	–20	1.4	1.8
Japan	372	573	–26	0.8	1.3
International	2,024	2,521	–10	4.6	5.5
Total sales	**4,829**	**6,339**	**–17**	**10.8**	**13.9**

The first biosimilar versions of Herceptin and Avastin were launched in the US from mid-2019 and the first biosimilar versions of MabThera/Rituxan in late 2019. In Europe the first biosimilar versions of MabThera/Rituxan and Herceptin were launched from mid-2017 and from mid-2018, respectively, and are now marketed in most EU countries. The first biosimilar versions of Avastin came to market in Europe from mid-2020. The first biosimilar versions of MabThera/Rituxan and Herceptin were launched in Japan in 2018. Biosimilar versions of Avastin were launched in Japan in late 2019 in the colorectal cancer indication, in 2020 in the non-small cell lung cancer indication, in 2022 in the breast cancer indication and in 2023 in the ovarian cancer indication. Sales of these three products in Japan were impacted by government price cuts as well as biosimilar competition. In the International region, biosimilar versions of all three products have been launched in many countries and this, together with the impacts of regular price and volume changes, has led to the decline in sales.

Lucentis. The Group's basic, primary patents have expired in the US. The first biosimilar version of Lucentis with a restricted label came to market in the US in the third quarter of 2022. US sales of Lucentis were CHF 460 million (2022: CHF 1,012 million), a decline of 52% at CER due to competitive pressure.

Esbriet. The first generic versions of Esbriet came to market in the second quarter of 2022. The sales of Esbriet were CHF 202 million (2022: CHF 718 million), a decline of 70% at CER.

Actemra/RoActemra. The Group's basic, primary patents have expired in the US and the EU. The first biosimilar versions of Actemra/RoActemra came to market in the EU in the fourth quarter of 2023. Based on publicly available information, the Group currently anticipates that the first biosimilar versions could come to market in the US in the first half of 2024. Global sales of Actemra/RoActemra were CHF 2,630 million (2022: CHF 2,701 million), an increase of 5% at CER, driven by the performance in the immunology therapeutic area despite lower demand from hospitalised patients with COVID-19.

Mergers and acquisitions

Asset acquisition. On 14 December 2023 the Group acquired a 100% controlling interest in Telavant Holdings, Inc. ('Telavant'), a US company owned by Roivant Sciences Ltd. ('Roivant') and Pfizer Inc. ('Pfizer'). With this transaction, the Group obtained rights to Telavant's portfolio, including full rights to further develop and manufacture RVT-3101 and commercialise it in the US and in Japan. RVT-3101 is a phase III-ready novel TL1A-directed antibody for the treatment of inflammatory bowel disease and potentially multiple other diseases. The cash consideration paid at the acquisition date was USD 7.1 billion.

Divestment. In May 2023 the Group announced plans to exit its legacy Genentech manufacturing facility in Vacaville, California, as part of a broader strategy to evolve its manufacturing capabilities in line with future pipeline requirements. As of 31 December 2023 the assets and certain liabilities directly associated with the Vacaville manufacturing plant were classified as held for sale, as the Group is committed to a plan to sell, which is expected to be completed in 2024.

Future business combinations. On 26 January 2024 the Group completed the acquisition of Carmot Therapeutics, Inc. ('Carmot'). With the acquisition, the Group obtained access to three clinical-stage product candidates to treat obesity and diabetes, as well as a number of preclinical programmes. The purchase consideration was USD 2.9 billion in cash and up to USD 0.4 billion from a contingent consideration arrangement. On 29 December 2023 the Group announced the entry into a definitive agreement to acquire selected subsidiaries of LumiraDx Limited ('LumiraDx'). With the acquisition, the Group will obtain access to LumiraDx's point-of-care technology which combines multiple diagnostic modalities on a single platform. The transaction is subject to certain conditions including antitrust and regulatory approvals. The closing of the transaction is currently expected to take place by mid-2024.

Further details are given in Note 6 to the Annual Financial Statements.

Alliance transactions

In 2023 in-licensing and alliance transactions resulted in intangible assets of CHF 1.0 billion being recognised.

Global restructuring plans

During 2023 the Group launched different productivity initiatives to reinvest in strategic areas and continued the implementation of various global restructuring plans initiated in prior years.

Global restructuring plans: costs incurred in millions of CHF

	2023	2022
Global restructuring costs		
– Employee-related costs	577	127
– Site closure and other costs related to physical assets	925	323
– Divestment of products and businesses	0	0
– Other reorganisation expenses	536	519
Total global restructuring costs	**2,038**	**969**

The Pharmaceuticals Division incurred restructuring costs of CHF 1,112 million, with the major item being an infrastructure strategy optimisation programme resulting in costs of CHF 554 million, primarily consisting of impairment of right-of-use assets and property, plant and equipment at US sites. Chugai initiated an early retirement incentive programme and incurred employee-related costs of CHF 66 million. The Diagnostics Division incurred costs of CHF 437 million for manufacturing and supply chain optimisations, research and development productivity initiatives and business transformations to drive organisational and commercial effectiveness. Corporate costs were CHF 489 million and included the business process transformation to simplify the systems landscape and reduce process complexity. This transformation is a multi-year cross-divisional programme to drive efficiency gains through system and process optimisation. Further details are given in Note 7 to the Annual Financial Statements.

Impairment of goodwill and intangible assets

Pharmaceuticals Division. The Pharmaceuticals Division recorded impairment charges to intangible assets of CHF 0.6 billion in total which were driven by reduced sales expectations and the latest research data. These charges included CHF 0.3 billion related to the impairment of several product intangible assets in development following clinical data assessments. There were also impairment charges of CHF 0.2 billion for the partial impairment of the product intangible asset for Rozlytrek, acquired as part of the Ignyta acquisition, and CHF 0.1 billion for the partial impairment of the product intangible asset for SPK-9001, a novel gene therapy for the treatment of haemophilia B that was acquired as part of the Spark Therapeutics acquisition.

The Pharmaceuticals Division recorded impairment charges to goodwill of CHF 0.6 billion for the full write-off of goodwill from the Foundation Medicine acquisition.

Diagnostics Division. There were no significant impairments of goodwill or intangible assets.

In 2022 there were impairment charges of CHF 2.8 billion in the Pharmaceuticals Division and none in the Diagnostics Division.

Further details are given in Notes 9 and 10 to the Annual Financial Statements.

Legal and environmental cases

Some of the provisions previously held were released based on the development of the various litigations. There was also a reimbursement of a fine imposed in 2020 by the French Competition Authority on the Avastin/Lucentis investigation following a court decision. These legal matters resulted in an income of CHF 230 million. The environmental cases included an increase in provisions of CHF 61 million for environmental matters mainly at the Clarecastle site in Ireland. There were no other significant developments in 2023. Further details are given in Note 20 to the Annual Financial Statements.

Net income and earnings per share

IFRS net income increased by 7% at CER while Core EPS increased by 6%. The base effect of the Ultomiris patent settlement income in 2022 had a dilutive impact, net of tax, of approximately 2 percentage points on the Core EPS growth. The Core EPS growth also included a positive impact of approximately 5 percentage points from the resolution of tax disputes in 2023. The core basis excludes non-core items such as global restructuring costs, amortisation and impairment of goodwill and intangible assets, legal and environmental cases, and mergers and acquisitions and alliance transactions. The amount of net income attributable to non-controlling interests decreased by 15% on both an IFRS and core basis, due to the base effect of the Ultomiris patent settlement income in 2022 at Chugai.

Net income

	2023 (CHF m)	2022 (CHF m)	% change (CHF)	% change (CER)
IFRS net income	**12,358**	**13,531**	**–9**	**+7**
Reconciling items (net of tax)				
– Global restructuring plans	1,635	776	+111	+119
– Intangible asset amortisation	667	853	–22	–18
– Goodwill and intangible asset impairment	1,128	2,402	–53	–50
– Mergers and acquisitions and alliance transactions	21	(66)	–	–
– Legal and environmental cases	(73)	(34)	+115	+127
– Normalisation of equity compensation plan tax benefit	68	68	0	+6
Core net income	**15,804**	**17,530**	**–10**	**+3**

Supplementary net income and EPS information is given on pages 172 to 176. This includes calculations of Core EPS and reconciles the core results to the Group's published IFRS results.

Financial position

Financial position

	2023 (CHF m)	2022 (CHF m)	% change (CHF)	% change (CER)
Pharmaceuticals				
Net working capital	3,446	3,791	–9	+6
Other net operating assets	33,060	28,765	+15	+24
Diagnostics				
Net working capital	3,248	3,268	–1	+11
Other net operating assets	12,690	13,250	–4	+3
Corporate				
Net working capital	(487)	(337)	+45	+48
Other net operating assets	158	182	–13	–6
Net operating assets	**52,115**	**48,919**	**+7**	**+16**
Net debt	(18,699)	(15,584)	+20	+26
Lease liabilities	(1,573)	(1,193)	+32	+44
Pensions	(3,360)	(3,604)	–7	0
Income taxes	4,376	2,908	+50	+68
Other net non-operating assets	404	569	–29	–31
Total net assets	**33,263**	**32,015**	**+4**	**+15**

Compared to the start of the year the Swiss franc appreciated against most currencies, with the US dollar and the Japanese yen having a significant negative translation effect on the Group's net operating assets. The negative translation effect from the US dollar was partially compensated by the natural hedge from the Group's US dollar-denominated debt. The exchange rates used are given on page 32.

Net working capital in the Pharmaceuticals Division increased by 6%. Trade receivables increased because of higher sales of Vabysmo and Ocrevus that had extended payment terms in the US. Trade payables decreased due to the payments for the construction of the Yokohama research and development site in Japan. In the Diagnostics Division, trade receivables increased by 14% following higher sales in the last quarter of 2023 compared to the same period of 2022 and also due to the base effect from higher collections towards the end of 2022. In addition, inventories decreased by 8% following lower inventory levels of COVID-19-related products.

The increase in net debt was primarily driven by the payment for the asset acquisition of Telavant of CHF 6.2 billion. The net tax assets increased in total due to the decrease in current income tax liabilities following the resolution of tax disputes in 2023. Lease liabilities increased to CHF 1.6 billion mainly due to the new laboratory and office space lease for Foundation Medicine. The net pension liability remained stable at CER.

Free cash flow

Free cash flow

	2023 (CHF m)	2022 (CHF m)	% change (CHF)	% change (CER)
Pharmaceuticals	17,728	17,694	0	+12
Diagnostics	1,677	3,382	–50	–35
Corporate	(3,637)	(3,403)	+7	+10
Operating free cash flow	**15,768**	**17,673**	**–11**	**+4**
Treasury activities	(860)	(530)	+62	+72
Taxes paid	(3,620)	(4,102)	–12	–5
Free cash flow	**11,288**	**13,041**	**–13**	**+4**

See pages 176–178 for the definition of free cash flow and a detailed breakdown.

Effective 1 January 2023, the Group has made certain presentational and cost allocation changes to the income statement. These changes have a consequential impact on the divisional free cash flow, although total Group free cash flow is unaffected. The comparative information for 2022 has been restated accordingly. Details are given on page 45.

Operating free cash flow was CHF 15.8 billion, an increase of 4% at CER (decrease of 11% in CHF), and free cash flow was CHF 11.3 billion, an increase of 4% at CER (decrease of 13% in CHF). Cash generation remained at a high level in both divisions, although lower in the Diagnostics Division due to the reduced COVID-19-related business. Net working capital increased in both divisions, but at a lower rate than in the prior year, and capital expenditure was also higher. Interest payments were higher due to the increase in debt and higher interest rates, while income tax payments were lower. The appreciation of the Swiss franc had a significant adverse impact on the cash flows expressed in Swiss francs.

Pharmaceuticals Division operating results

Pharmaceuticals Division operating results

	2023 (CHF m)	2022 (CHF m)	% change (CHF)	% change (CER)
IFRS results				
Sales	44,612	45,551	-2	+6
Other revenue	1,667	2,465	-32	-27
Revenue	**46,279**	**48,016**	**-4**	**+4**
Cost of sales	(9,083)	(11,040)	-18	-13
Research and development	(12,352)	(13,384)	-8	-2
Selling, general and administration	(7,945)	(7,598)	+5	+12
Other operating income (expense)	233	772	-70	-69
Operating profit	**17,132**	**16,766**	**+2**	**+14**
– Margin, % of sales	38.4	36.8	+1.6	+3.0
Core results[a]				
Sales	44,612	45,551	-2	+6
Other revenue	1,667	2,465	-32	-27
Revenue	**46,279**	**48,016**	**-4**	**+4**
Cost of sales	(8,343)	(8,905)	-6	-1
Research and development	(11,490)	(11,420)	+1	+6
Selling, general and administration	(7,215)	(7,324)	-1	+6
Other operating income (expense)	758	764	-1	+3
Core operating profit	**19,989**	**21,131**	**-5**	**+5**
– Margin, % of sales	44.8	46.4	-1.6	-0.4
Financial position				
Net working capital	3,446	3,791	-9	+6
Other net operating assets	33,060	28,765	+15	+24
Net operating assets	**36,506**	**32,556**	**+12**	**+22**
Free cash flow[b]				
Operating free cash flow	17,728	17,694	0	+12
– Margin, % of sales	39.7	38.8	+0.9	+2.3

a) See pages 172–176 for the definition of core results.
b) See pages 176–178 for the definition of free cash flow.

Effective 1 January 2023, the Group has made certain presentational and cost allocation changes to the income statement. The comparative information for 2022 has been restated accordingly. Details are given on page 45.

Sales overview

Pharmaceuticals Division – Sales by therapeutic area

	2023 (CHF m)	2022 (CHF m)	% change (CER)	% of sales (2023)	% of sales (2022)
Oncology	19,087	19,995	+4	42.8	43.9
Neuroscience	8,445	7,817	+16	18.9	17.2
Immunology	6,242	7,181	-7	14.0	15.8
Haemophilia A	4,147	3,823	+16	9.3	8.4
Ophthalmology[a]	2,865	1,651	+85	6.4	3.6
Infectious diseases	1,056	2,161	-45	2.4	4.7
Other therapeutic areas[a]	2,770	2,923	+3	6.2	6.4
Total sales	**44,612**	**45,551**	**+6**	**100**	**100**

a) In 2023 sales of the 'Ophthalmology' therapeutic area included sales of Luxturna. These were previously shown as part of 'Other therapeutic areas'. The comparative information for 2022 has been restated accordingly. Sales of Luxturna for 2022 were CHF 46 million.

Sales in the Pharmaceuticals Division were CHF 44.6 billion (2022: CHF 45.6 billion), an increase of 6% at CER, driven by growing demand for Vabysmo, Ocrevus, Hemlibra, Polivy and Phesgo, which together contributed an additional CHF 4.3 billion (CER) of sales. Sales of MabThera/Rituxan, Herceptin and Avastin decreased by a combined CHF 1.1 billion (CER) or 17%, as the impact of biosimilar competition continued, but to a lower extent.

Sales of Ocrevus were CHF 6.4 billion, an increase of 13%, which included 11% growth in the US. Hemlibra reported sales of CHF 4.1 billion, an increase of 16%, led by US sales in the non-inhibitor segment. Sales of Perjeta were CHF 3.8 billion with growth in the International region being partly offset by a decline in sales in the US as a result of an adjustment in the reserves related to US governmental plans. Tecentriq sales were CHF 3.8 billion, with growth of 9% across all regions. Vabysmo was a major growth driver with sales of CHF 2.4 billion mainly in the US.

Sales in the oncology therapeutic area increased by 4%, with the growth being driven by Polivy, Phesgo and Tecentriq, partially offset by the biosimilar competition for MabThera/Rituxan, Herceptin and Avastin. Phesgo sales were CHF 1.1 billion with a growth of 64% in all regions. Polivy sales increased by 108% to CHF 0.8 billion across all regions, notably in the US and Japan.

Sales in neuroscience grew by 16% mainly due to Ocrevus and Evrysdi, with Enspryng also contributing to the sales growth.
In the immunology therapeutic area, Actemra/RoActemra sales increased by 5% despite the lower demand from hospitalised patients with COVID-19. Xolair sales in the US were 5% higher, while sales of Esbriet were 70% lower as a result of generic competition, which was the main contributor to the overall 7% sales decline in immunology.

Sales in the haemophilia A therapeutic area grew by 16% due to the continued growth of Hemlibra in the non-inhibitor segment. Sales in ophthalmology significantly increased reflecting the growth in Vabysmo sales, partially offset by the 52% decrease in Lucentis sales in the US due to competitive pressure. For infectious diseases, Ronapreve sales decreased by 65% reflecting the lower sales due to the evolving COVID-19 situation. In other therapeutic areas, sales of Activase/TNKase were 6% higher mainly driven by increasing demand in the acute ischaemic stroke indication.

Product sales

Pharmaceuticals Division – Sales

	2023 (CHF m)	2022 (CHF m)	% change (CER)	% of sales (2023)	% of sales (2022)
Oncology					
Perjeta	3,768	4,087	+1	8.4	9.0
Tecentriq	3,766	3,717	+9	8.4	8.2
Kadcyla	1,966	2,080	+4	4.4	4.6
Herceptin	1,626	2,142	–16	3.6	4.7
Avastin	1,573	2,122	–19	3.5	4.7
Alecensa	1,502	1,513	+8	3.4	3.3
MabThera/Rituxan [a]	1,261	1,599	–15	2.8	3.5
Phesgo	1,120	740	+64	2.5	1.6
Polivy	837	437	+108	1.9	1.0
Gazyva/Gazyvaro	811	730	+19	1.8	1.6
Erivedge	245	271	0	0.5	0.6
Others	612	557	+21	1.6	1.1
Total Oncology	**19,087**	**19,995**	**+4**	**42.8**	**43.9**
Neuroscience					
Ocrevus	6,381	6,036	+13	14.3	13.3
Evrysdi	1,419	1,119	+39	3.2	2.5
Madopar	355	379	0	0.8	0.8
Enspryng	256	192	+49	0.6	0.4
Others	34	91	–64	0.0	0.2
Total Neuroscience	**8,445**	**7,817**	**+16**	**18.9**	**17.2**
Immunology					
Actemra/RoActemra	2,630	2,701	+5	5.9	5.9
Xolair	2,176	2,208	+5	4.9	4.8
Pulmozyme	452	543	–10	1.0	1.2
CellCept	393	503	–14	0.9	1.1
MabThera/Rituxan [a]	369	476	–17	0.8	1.0
Esbriet	202	718	–70	0.5	1.6
Others	20	32	–30	0.0	0.2
Total Immunology	**6,242**	**7,181**	**–7**	**14.0**	**15.8**
Haemophilia A					
Hemlibra	4,147	3,823	+16	9.3	8.4
Total Haemophilia A	**4,147**	**3,823**	**+16**	**9.3**	**8.4**
Ophthalmology [b]					
Vabysmo	2,357	591	+324	5.3	1.3
Lucentis	460	1,012	–52	1.0	2.2
Others	48	48	+6	0.1	0.1
Total Ophthalmology	**2,865**	**1,651**	**+85**	**6.4**	**3.6**
Infectious diseases					
Ronapreve	525	1,679	–65	1.2	3.7
Others	531	482	+22	1.2	1.0
Total Infectious diseases	**1,056**	**2,161**	**–45**	**2.4**	**4.7**

Pharmaceuticals Division – Sales *(continued)*

	2023 (CHF m)	2022 (CHF m)	% change (CER)	% of sales (2023)	% of sales (2022)
Other therapeutic areas [b]					
Activase/TNKase	1,173	1,177	+6	2.6	2.6
Mircera	426	408	+13	1.0	0.9
Others	1,171	1,338	–3	2.6	2.9
Total other therapeutic areas	**2,770**	**2,923**	**+3**	**6.2**	**6.4**
Total sales	**44,612**	**45,551**	**+6**	**100**	**100**

a) Total MabThera/Rituxan sales of CHF 1,630 million (2022: CHF 2,075 million) split between oncology and immunology therapeutic areas.
b) In 2023 sales of the 'Ophthalmology' therapeutic area included sales of Luxturna. These were previously shown as part of 'Other therapeutic areas'. The comparative information for 2022 has been restated accordingly. Sales of Luxturna for 2022 were CHF 46 million.

Ocrevus. For relapsing forms of multiple sclerosis (RMS) and primary progressive multiple sclerosis (PPMS).

Ocrevus regional sales

	2023 (CHF m)	2022 (CHF m)	% change (CER)	% of sales (2023)	% of sales (2022)
United States	4,684	4,487	+11	73.4	74.3
Europe	1,166	1,075	+12	18.3	17.8
International	531	474	+31	8.3	7.9
Total sales	**6,381**	**6,036**	**+13**	**100**	**100**

There was continuously growing demand in both indications primarily driven by the US, with the growth coming from both new and retained patients. Elsewhere, Ocrevus continued to show high uptake, notably in Germany, Italy and Brazil.

Hemlibra. For haemophilia A.

Hemlibra regional sales

	2023 (CHF m)	2022 (CHF m)	% change (CER)	% of sales (2023)	% of sales (2022)
United States	2,493	2,316	+14	60.1	60.6
Europe	845	741	+18	20.4	19.4
Japan	373	377	+12	9.0	9.9
International	436	389	+29	10.5	10.1
Total sales	**4,147**	**3,823**	**+16**	**100**	**100**

Sales growth continued, especially in the US in the non-inhibitor segment. In Europe and the International region, sales grew across major markets, while sales in Japan increased as a result of further market penetration.

HER2 franchise (Perjeta, Kadcyla, Herceptin and Phesgo). For HER2-positive breast cancer and HER2-positive metastatic (advanced) gastric cancer (Herceptin only).

Perjeta regional sales

	2023 (CHF m)	2022 (CHF m)	% change (CER)	% of sales (2023)	% of sales (2022)
United States	1,336	1,533	–7	35.5	37.5
Europe	776	871	–8	20.6	21.3
Japan	215	234	+4	5.7	5.7
International	1,441	1,449	+16	38.2	35.5
Total sales	**3,768**	**4,087**	**+1**	**100**	**100**

Kadcyla regional sales

	2023 (CHF m)	2022 (CHF m)	% change (CER)	% of sales (2023)	% of sales (2022)
United States	757	820	–2	38.5	39.4
Europe	577	671	–11	29.3	32.3
Japan	102	131	–12	5.2	6.3
International	530	458	+43	27.0	22.0
Total sales	**1,966**	**2,080**	**+4**	**100**	**100**

Herceptin regional sales

	2023 (CHF m)	2022 (CHF m)	% change (CER)	% of sales (2023)	% of sales (2022)
United States	331	476	–26	20.4	22.2
Europe	353	422	–14	21.7	19.7
Japan	30	51	–33	1.8	2.4
International	912	1,193	–13	56.1	55.7
Total sales	**1,626**	**2,142**	**–16**	**100**	**100**

Phesgo regional sales

	2023 (CHF m)	2022 (CHF m)	% change (CER)	% of sales (2023)	% of sales (2022)
United States	423	304	+48	37.8	41.1
Europe	534	367	+52	47.7	49.6
Japan	4	0	–	0.4	0.0
International	159	69	+189	14.1	9.3
Total sales	**1,120**	**740**	**+64**	**100**	**100**

Sales in the HER2 franchise increased by 3% at CER to CHF 8.5 billion. Sales of Perjeta grew by 1%, with the International region, particularly China and Brazil, being a key growth driver. This was partly offset by a decline in sales in the US as a result of an adjustment in the reserves related to US governmental plans. Excluding this adjustment, Perjeta sales in the US showed a growth of 1%. Sales of Perjeta in Europe were lower following the launch of Phesgo. Sales of Kadcyla increased by 4%, with sales growth in the International region, mainly in China, being partially offset by a sales decline in Europe, the US and Japan. Herceptin sales were 16% lower as a result of biosimilar erosion. Phesgo sales showed a considerable uptake in Europe, the US and the International region due to continued switching of patients to Phesgo as the treatment preferred over Perjeta and Herceptin.

Tecentriq. For extensive-stage small cell lung cancer (SCLC), initial therapy of non-squamous non-small cell lung cancer (NSCLC), advanced lung cancer, unresectable or metastatic hepatocellular carcinoma (HCC), advanced bladder cancer and PD-L1-positive triple-negative breast cancer (TNBC).

Tecentriq regional sales

	2023 (CHF m)	2022 (CHF m)	% change (CER)	% of sales (2023)	% of sales (2022)
United States	1,941	1,975	+4	51.5	53.1
Europe	845	794	+10	22.4	21.4
Japan	419	443	+8	11.1	11.9
International	561	505	+29	15.0	13.6
Total sales	**3,766**	**3,717**	**+9**	**100**	**100**

Sales increased by 9% with growth across all regions. In the US sales were higher driven by the NSCLC adjuvant indication. In Europe the growth was mainly driven by the SCLC and HCC indications. In Japan the sales increase came from growth in the NSCLC adjuvant indication. In the International region China was the key growth driver.

Vabysmo. For neovascular or 'wet' age-related macular degeneration (nAMD), diabetic macular oedema (DME) and in the US also for macular oedema following retinal vein occlusion (RVO).

Vabysmo regional sales

	2023 (CHF m)	2022 (CHF m)	% change (CER)	% of sales (2023)	% of sales (2022)
United States	1,914	517	+293	81.2	87.5
Europe	276	22	Over +500	11.7	3.7
Japan	98	47	+138	4.2	8.0
International	69	5	Over +500	2.9	0.8
Total sales	**2,357**	**591**	**+324**	**100**	**100**

Sales in the US showed a high uptake following approval in January 2022 and there was continued growth of market share in nAMD and DME, driven by new patients and patients switching from existing treatment options. In Europe, the UK and Germany were the main growth drivers. Sales also grew in Japan and in the International region, driven by sales in Australia and Canada.

Actemra/RoActemra. For rheumatoid arthritis, forms of juvenile idiopathic arthritis, giant cell arteritis, CAR T-cell-induced severe or life-threatening cytokine release syndrome and COVID-19.

Actemra/RoActemra regional sales

	2023 (CHF m)	2022 (CHF m)	% change (CER)	% of sales (2023)	% of sales (2022)
United States	1,223	1,196	+9	46.5	44.3
Europe	775	802	0	29.5	29.7
Japan	311	342	+3	11.8	12.7
International	321	361	+4	12.2	13.3
Total sales	**2,630**	**2,701**	**+5**	**100**	**100**

Sales increased by 5%, mainly in the US, despite lower demand from hospitalised patients with COVID-19. The demand outside of COVID-19 increased based on continued confidence in the medicine, especially in the rheumatoid arthritis segment. The first biosimilar versions of Actemra/RoActemra came to market in the EU in the fourth quarter of 2023. Based on publicly available information, the Group currently anticipates that the first biosimilar versions could come to market in the US in the first half of 2024.

Xolair. For chronic spontaneous urticaria and allergic asthma.

Xolair regional sales

	2023 (CHF m)	2022 (CHF m)	% change (CER)	% of sales (2023)	% of sales (2022)
United States	2,176	2,208	+5	100	100
Total sales	**2,176**	**2,208**	**+5**	**100**	**100**

Sales increased by 5% driven by growth in the chronic spontaneous urticaria indication and stabilisation of new patient share in the allergic asthma indication. Xolair is the only biologic approved for chronic spontaneous urticaria and remains a market leader in the larger allergic asthma indication.

MabThera/Rituxan. For non-Hodgkin lymphoma (NHL), chronic lymphocytic leukaemia (CLL), follicular lymphoma (FL), pemphigus vulgaris (PV), rheumatoid arthritis (RA) as well as certain types of antineutrophil cytoplasmic antibody (ANCA)-associated vasculitis.

MabThera/Rituxan regional sales

	2023 (CHF m)	2022 (CHF m)	% change (CER)	% of sales (2023)	% of sales (2022)
United States	987	1,316	–20	60.6	63.4
Europe	180	204	–9	11.0	9.8
Japan	24	32	–13	1.5	1.5
International	439	523	–6	26.9	25.3
Total sales	**1,630**	**2,075**	**–15**	**100**	**100**

Sales were 15% lower due to biosimilar erosion across all regions. Sales in the US decreased by 20%, with a decline in both the oncology and immunology segments.

Avastin. For advanced colorectal, breast, lung, kidney, cervical and ovarian cancer, relapsed glioblastoma and liver cancer in combination with Tecentriq.

Avastin regional sales

	2023 (CHF m)	2022 (CHF m)	% change (CER)	% of sales (2023)	% of sales (2022)
United States	484	634	–19	30.8	29.9
Europe	98	193	–47	6.2	9.1
Japan	318	490	–26	20.2	23.1
International	673	805	–7	42.8	37.9
Total sales	**1,573**	**2,122**	**–19**	**100**	**100**

Sales decreased across all regions, mainly in Japan and the US due to the continuing impact of biosimilars. The sales decline in Europe was driven by Germany and Italy, while in the International region, the main reason for the sales decline was biosimilar competition in China.

Alecensa. For ALK-positive non-small cell lung cancer (NSCLC).

Alecensa regional sales

	2023 (CHF m)	2022 (CHF m)	% change (CER)	% of sales (2023)	% of sales (2022)
United States	467	453	+9	31.1	29.9
Europe	292	292	+4	19.4	19.3
Japan	212	228	+5	14.1	15.1
International	531	540	+11	35.4	35.7
Total sales	**1,502**	**1,513**	**+8**	**100**	**100**

The global uptake continued with an 8% increase in sales. The International region was one of the main drivers, notably China following the inclusion in the National Reimbursement Drug List (NRDL). In the US, Alecensa remains the standard of care, and the growth was driven by new and continuing patients.

Evrysdi. For spinal muscular atrophy (SMA).

Evrysdi regional sales

	2023 (CHF m)	2022 (CHF m)	% change (CER)	% of sales (2023)	% of sales (2022)
United States	505	470	+14	35.6	42.0
Europe	509	353	+49	35.9	31.5
Japan	93	84	+26	6.6	7.5
International	312	212	+80	21.9	19.0
Total sales	**1,419**	**1,119**	**+39**	**100**	**100**

Sales were 39% higher, due to continuous gains in patient share including expansion into adult patient population and there was sales growth across all regions. In Europe the growth continued in all markets, including in Spain where Evrysdi was recently launched. In the International region, Brazil, Canada and China were among the growth drivers.

Activase/TNKase. For acute ischaemic stroke (AIS) and acute myocardial infarction (AMI).

Activase/TNKase regional sales

	2023 (CHF m)	2022 (CHF m)	% change (CER)	% of sales (2023)	% of sales (2022)
United States	1,112	1,114	+6	94.8	94.6
International	61	63	+5	5.2	5.4
Total sales	**1,173**	**1,177**	**+6**	**100**	**100**

Sales were 6% higher mainly due to increasing demand for the AIS indication in the US.

Ronapreve. For the treatment of recently diagnosed high-risk patients with mild to moderate COVID-19.

Ronapreve regional sales

	2023 (CHF m)	2022 (CHF m)	% change (CER)	% of sales (2023)	% of sales (2022)
Europe	5	101	–95	1.0	6.0
Japan	519	1,480	–60	98.9	88.1
International	1	98	–99	0.1	5.9
Total sales	**525**	**1,679**	**–65**	**100**	**100**

Sales of Ronapreve decreased by 65% reflecting lower sales due to the evolving COVID-19 situation.

Lucentis. For neovascular or 'wet' age-related macular degeneration (nAMD), macular oedema following retinal vein occlusion (RVO), diabetic macular oedema (DME) and diabetic retinopathy (DR).

Lucentis regional sales

	2023 (CHF m)	2022 (CHF m)	% change (CER)	% of sales (2023)	% of sales (2022)
United States	460	1,012	–52	100	100
Total sales	**460**	**1,012**	**–52**	**100**	**100**

The first biosimilar version of Lucentis with a restricted label came to market in the US in the third quarter of 2022. Sales in the US decreased by 52% due to the ongoing switch of patients from Lucentis to Vabysmo and competitive pressure.

Pharmaceuticals Division – Sales by region

	2023 (CHF m)	2022 (CHF m)	% change (CER)	% of sales (2023)	% of sales (2022)
United States	23,606	23,322	+8	52.9	51.2
Europe	8,306	8,143	+6	18.6	17.8
Japan	3,745	4,949	–14	8.4	10.9
International	8,955	9,137	+13	20.1	20.1
– *of which China*	*2,875*	*3,039*	*+6*	*6.4*	*6.7*
Total sales	**44,612**	**45,551**	**+6**	**100**	**100**

United States. Sales grew by 8% due to increased sales of Vabysmo, Ocrevus, Hemlibra, Polivy and Phesgo, partially offset by a combined 21% fall in MabThera/Rituxan, Herceptin and Avastin sales and also by lower sales of Lucentis and Esbriet. Vabysmo showed a high uptake, with both new patients and patients switching from other medications and achieved CHF 1.9 billion of sales. Ocrevus sales increased by 11% and were driven by both new and retained patients. Hemlibra sales were 14% higher due to continued growth in the non-inhibitor segment. Polivy sales increased by 119% as a result of higher demand for the first-line treatment of diffuse large B-cell lymphoma (1L DLBCL). Phesgo sales increased by 48%, attributed to the continued switching of patients to Phesgo as the treatment preferred over Perjeta and Herceptin. Lucentis and Esbriet sales decreased by 52% and 74% respectively due to competitive pressure.

Europe. Sales increased by 6% driven by the launch of Vabysmo and uptake of Phesgo, Evrysdi, Hemlibra and Ocrevus, partially offset by a combined sales decline of 20% for MabThera/Rituxan, Herceptin and Avastin. The uptake of Vabysmo was driven by the UK and Germany. The high uptake of Phesgo resulted in a 52% sales growth, with Spain, Italy, Romania and France being the key drivers. There was a sales growth of 49% for Evrysdi, with the main drivers being Italy, Germany, France and Spain. Hemlibra sales growth of 18% was driven by France and Germany. Ocrevus sales increased by 12% due to continued growth across major markets, primarily in Germany and Italy. Sales of Ronapreve were lower.

Japan. Sales decreased by 14%, mainly due to lower Ronapreve sales and reduced sales of Avastin arising from biosimilar competition. These were partially offset by sales growth of new products such as Polivy and Vabysmo. Price cuts in Japan had an impact across the portfolio.

International. Sales increased by 13%, led by Perjeta, Kadcyla, Evrysdi, Ocrevus and Tecentriq. Sales in China increased by 6% mainly driven by Tamiflu, Xofluza, Polivy, Tecentriq and Perjeta, partially offset by biosimilar erosion of MabThera/Rituxan, Herceptin and Avastin and lower sales of CellCept.

Operating results

Effective 1 January 2023, the Group has made certain presentational and cost allocation changes to the income statement. The comparative information for 2022 has been restated accordingly. Details are given on page 45.

Pharmaceuticals Division – Other revenue

	2023 (CHF m)	2022 (CHF m)	% change (CER)
Royalty income	835	924	–6
Profit-share income	695	689	+7
Other income from collaboration and out-licensing agreements	124	842	–83
Other	13	10	+16
Total – IFRS and Core basis	**1,667**	**2,465**	**–27**

Other revenue decreased by 27% at CER. Royalty income was 6% lower, mainly due to lower Lucentis royalties following a decline in sales outside the US. Profit-share income was 7% higher due to the increase in income from the US sales of Venclexta/Venclyxto and sales of Xolair outside the US. Other income from collaboration and out-licensing agreements decreased significantly due to the Ultomiris patent settlement income of CHF 726 million in 2022.

Pharmaceuticals Division – Cost of sales

	2023 (CHF m)	2022 (CHF m)	% change (CER)
Manufacturing cost of goods sold and period costs	(5,042)	(5,181)	+1
Royalty expenses	(1,729)	(1,614)	+15
Collaboration and profit-sharing agreements	(1,547)	(2,076)	–20
Amortisation of commercial software intangible assets	(3)	(3)	+9
Impairment of property, plant and equipment and right-of-use assets	(22)	(31)	–17
Cost of sales – Core basis	**(8,343)**	**(8,905)**	**–1**
Global restructuring plans	(316)	(251)	+32
Amortisation of intangible assets	(241)	(412)	–39
Impairment of intangible assets	(183)	(1,472)	–87
Total – IFRS basis	**(9,083)**	**(11,040)**	**–13**

Core costs decreased by 1% at CER despite the 6% increase in sales. As a percentage of sales, cost of sales decreased by 0.8 percentage points to 18.7%. Manufacturing costs were impacted in 2023 by various factors related to COVID-19 products, including a release of unutilised provisions previously recorded for the COVID-19 response related to Ronapreve and AT-527. In addition there was an overall positive product mix and lower distribution costs. Excluding these, manufacturing costs were broadly in line with the increase in sales volumes. Royalty expenses were 15% higher driven by increased sales of certain royalty-bearing products, notably Ocrevus and Evrysdi. Collaboration and profit-share expenses decreased by 20% as a result of lower sales of Ronapreve outside of the US and MabThera/Rituxan in the US.

The costs of global restructuring plans were higher due to the manufacturing network strategy review mainly affecting the US sites. The decrease in amortisation charges of intangible assets was primarily attributable to the impairments recorded in 2022 in relation to Gavreto, Rozlytrek and the technologies of Flatiron Health and Foundation Medicine. In 2023 a further partial impairment was recorded in relation to Rozlytrek triggered by reduced sales expectations.

Pharmaceuticals Division – Research and development

	2023 (CHF m)	2022 (CHF m)	% change (CER)
Research and development – Core basis	**(11,490)**	**(11,420)**	**+6**
Global restructuring plans	(155)	(263)	–36
Amortisation of intangible assets	(301)	(336)	–7
Impairment of intangible assets	(406)	(1,365)	–69
Total – IFRS basis	**(12,352)**	**(13,384)**	**–2**

Core costs increased by 6% at CER and, as a percentage of sales, increased by 0.7 percentage points to 25.8%. Oncology remained the primary area of research and development and the main driver of the growth. Neuroscience, ophthalmology and immunology also represented significant areas of spending. The increase in spending was mainly driven by a study of giredestrant, a next-generation selective oestrogen receptor degrader for people with hormone receptor-positive HER2-negative breast cancer and a study of astegolimab in chronic obstructive pulmonary disease together with further investments made in oncology and multiple sclerosis. This was partially offset by decreased spend in studies of some molecules, notably for gantenerumab following the negative trial readout in November 2022. In research and early-stage development, the increase in costs was mostly driven by investments in computational biology. Investments made in new facilities additionally contributed to the increased costs, including the Clinical Supply Center in South San Francisco, US, and the Chugai Life Science Park in Yokohama, Japan. Both facilities started initial operations in the second half of 2022 with a consequent impact on depreciation expenses.

Additionally, in-licensing transactions, business combinations and asset acquisitions resulted in intangible assets of CHF 7.2 billion (2022: CHF 1.2 billion) being recognised, of which CHF 6.2 billion arose from the Telavant asset acquisition. See the above sections on 'Mergers and acquisitions' and 'Alliance transactions' for further details.

Global restructuring plan expenses mainly related to the infrastructure strategy optimisation programme as well as employee-related expenses based on the new research and development productivity and portfolio prioritisation initiatives. Amortisation of intangible assets decreased as a result of the impairments recognised in 2022. Impairment charges for intangible assets of CHF 0.4 billion related to assets in development were mainly triggered by the decision to discontinue the programmes.

Pharmaceuticals Division – Selling, general and administration

	2023 (CHF m)	2022 (CHF m)	% change (CER)
Marketing and distribution	(5,836)	(5,916)	+6
Administration	(1,104)	(1,193)	–1
Business taxes and capital taxes	(173)	(160)	+18
Other general items	(102)	(55)	+90
Selling, general and administration – Core basis	**(7,215)**	**(7,324)**	**+6**
Global restructuring plans	(721)	(261)	+191
Amortisation of intangible assets	(9)	(13)	–20
Total – IFRS basis	**(7,945)**	**(7,598)**	**+12**

Core costs increased by 6% at CER, and as a percentage of sales increased by 0.1 percentage points to 16.2%. Marketing and distribution costs increased by 6% reflecting the investments in ongoing launches, especially of Vabysmo. Business taxes and capital taxes increased due to the relatively low US excise tax in 2022, while the higher costs in other general items were caused by various items including costs for the underutilisation of facilities post-COVID-19 and higher energy costs. Costs for global restructuring plans included asset impairments at sites in the US driven by infrastructure optimisation and business process transformations.

Pharmaceuticals Division – Other operating income (expense)

	2023 (CHF m)	2022 (CHF m)	% change (CER)
Gains (losses) on disposal of products	558	612	–6
Gains (losses) on disposal of property, plant and equipment and right-of-use assets	7	5	+74
Pensions – past service costs	0	4	–
Other income (expense)	193	143	+43
Other operating income (expense) – Core basis	**758**	**764**	**+3**
Global restructuring plans	80	(14)	–
Impairment of goodwill	(591)	0	–
Mergers and acquisitions and alliance transactions	(14)	6	–
Legal and environmental cases	0	16	–
Total – IFRS basis	**233**	**772**	**–69**

Core other operating income (expense) increased by 3% at CER driven by a 43% increase in other income (expense) mainly due to higher income from positive resolution of disputes in some countries. Gains on disposal of products in 2023 included the sale of rights for Rocephin in China for CHF 260 million and the sale of rights for Xeloda in China and Japan for CHF 235 million. In 2022, the gains on disposal of products included CHF 272 million for the sale of rights for Rocaltrol in China, the sale of global rights for Valcyte for CHF 185 million and the sale of global rights for Xeloda excluding China and Japan for CHF 150 million.

Income from global restructuring plans was related to the gain from the disposal of property. The goodwill resulting from the Foundation Medicine acquisition was fully impaired. Legal and environmental cases income recorded in 2023 included the reimbursement of a fine imposed in 2020 by the French Competition Authority on the Avastin/Lucentis investigation following a court decision. This was largely offset by the increase in provisions for environmental matters at the Clarecastle site in Ireland.

Roche Pharmaceuticals and Chugai subdivisional operating results

Pharmaceuticals subdivisional operating results in millions of CHF

	Roche Pharmaceuticals 2023	2022	Chugai 2023	2022	Pharmaceuticals Division 2023	2022
Sales						
– External customers	40,867	40,602	3,745	4,949	44,612	45,551
– Within division	1,943	3,384	2,490	2,602	4,433	5,986
Core operating profit	16,664	17,576	2,976	4,052	19,989	21,131
– Margin, % of sales to external customers	40.8	43.3	79.5	81.9	44.8	46.4
Operating profit	13,868	13,275	2,915	3,988	17,132	16,766
– Margin, % of sales to external customers	33.9	32.7	77.8	80.6	38.4	36.8
Operating free cash flow	14,233	15,315	3,542	2,359	17,728	17,694
– Margin, % of sales to external customers	34.8	37.7	94.6	47.7	39.7	38.8

Pharmaceuticals Division total core operating profit and operating profit both include the elimination of plus CHF 349 million of unrealised intercompany gains between Roche Pharmaceuticals and Chugai (2022: minus CHF 497 million).

Effective 1 January 2023, the Group has made certain presentational and cost allocation changes to the income statement. The comparative information for 2022 has been restated accordingly. Details are given on page 45.

The appreciation of the Swiss franc against the Japanese yen had an adverse impact of approximately 8 percentage points on the Chugai core results when expressed in Swiss francs for the Group's consolidated results. At CER (as reported in Japanese yen), sales by Chugai to external customers decreased by 14% due to lower sales of Ronapreve, while sales within the division increased by 9% due to higher sales of Hemlibra and Alecensa by Chugai to Roche Pharmaceuticals. Chugai's core operating profit decreased by 19% driven by the income from the Ultomiris patent settlement in 2022 and higher research and development costs. This was partially offset by higher other operating income coming from the sale of product rights. Operating free cash flow at Chugai increased by 69% due in part to the payment received in 2023 for Ronapreve sales recorded in December 2022.

Financial position

Pharmaceuticals Division – Net operating assets

	2023 (CHF m)	2022 (CHF m)	% change (CHF)	% change (CER)	Movement: Transactions (CHF m)	Movement: CTA and other (CHF m)
Trade receivables	8,009	8,617	–7	+3	268	(876)
Inventories	4,849	5,259	–8	–1	(5)	(405)
Trade payables	(2,110)	(2,363)	–11	–4	96	157
Net trade working capital	**10,748**	**11,513**	**–7**	**+3**	**359**	**(1,124)**
Other receivables (payables)	(7,302)	(7,722)	–5	+2	(132)	552
Net working capital	**3,446**	**3,791**	**–9**	**+6**	**227**	**(572)**
Property, plant and equipment	14,423	15,788	–9	–3	(380)	(985)
Right-of-use assets	882	845	+4	+14	115	(78)
Goodwill and intangible assets	18,025	13,676	+32	+43	5,454	(1,105)
Provisions	(1,799)	(2,392)	–25	–20	486	107
Other assets (liabilities)	1,529	848	+80	+96	734	(53)
Other net operating assets	**33,060**	**28,765**	**+15**	**+24**	**6,409**	**(2,114)**
Net operating assets	**36,506**	**32,556**	**+12**	**+22**	**6,636**	**(2,686)**

The absolute amount of the movement between the 2023 and 2022 consolidated balances reported in Swiss francs is split between actual 2023 transactions (translated at average rates for 2022) and the currency translation adjustment (CTA) that arises on consolidation. The 2023 transactions include non-cash movements and therefore the movements in this table are not the same as the amounts shown in the operating free cash flow (which only includes the cash movements). A full consolidated balance sheet is given on page 49 of the Annual Financial Statements, and a reconciliation between that balance sheet and the information given above is on pages 179–180.

Currency translation effects on balance sheet amounts. Compared to the start of the year the Swiss franc appreciated against most currencies, with the US dollar and the Japanese yen both having a significant negative translation effect on the net operating assets of the Pharmaceuticals Division. The exchange rates used are given on page 32.

Net working capital. Trade receivables increased by 3% due to increased sales of Vabysmo and Ocrevus that had extended payment terms in the US. This was partially offset by the receipt of cash from Ronapreve sales in Japan in December 2022. The decrease in trade payables of 4% included payments for the construction of the Yokohama research and development site in Japan. The net liability position for other receivables (payables) increased by 2% due to higher other taxes payable partly compensated by lower profit-share expense accruals to Regeneron in relation to Ronapreve sales.

Other net operating assets. Property, plant and equipment decreased by 3% due to depreciation expenses and the transfer of assets at the Vacaville manufacturing site from property, plant and equipment to assets held for sale, which caused a corresponding increase in other assets. This was partially offset by additions for manufacturing investments and site developments. Right-of-use assets increased due to the new lease at Foundation Medicine. The Telavant asset acquisition increased intangible assets by CHF 6.2 billion. Conversely, goodwill decreased due to impairment charges of CHF 0.6 billion for the full write-off of goodwill from the Foundation Medicine acquisition. Provisions decreased due to the release of certain previously recorded positions.

Free cash flow

Pharmaceuticals Division – Operating free cash flow

	2023 (CHF m)	2022 (CHF m)	% change (CHF)	% change (CER)
Operating profit	**17,132**	**16,766**	**+2**	**+14**
Depreciation, amortisation and impairment	3,790	5,306	–29	–25
Provisions	(506)	(248)	+104	+108
Equity compensation plans	634	560	+13	+20
Other	398	150	+165	+179
Operating profit cash adjustments	**4,316**	**5,768**	**–25**	**–21**
Operating profit, net of operating cash adjustments	**21,448**	**22,534**	**–5**	**+5**
(Increase) decrease in net working capital	(714)	(1,745)	–59	–59
Investments in property, plant and equipment	(1,936)	(1,744)	+11	+18
Principal portion of lease liabilities paid	(215)	(274)	–22	–15
Investments in intangible assets	(855)	(1,077)	–21	–19
Operating free cash flow	**17,728**	**17,694**	**0**	**+12**
– as % of sales	39.7	38.8	+0.9	+2.3

See pages 176–178 for the definition of free cash flow and a detailed breakdown.

Effective 1 January 2023, the Group has made certain presentational and cost allocation changes to the income statement. These changes have a consequential impact on the divisional free cash flow, although total Group free cash flow is unaffected. The comparative information for 2022 has been restated accordingly. Details are given on page 45.

The Pharmaceuticals Division's operating free cash flow increased by 12% at CER (stable in CHF) to CHF 17.7 billion. The cash generation of the business, measured by the operating profit, net of operating cash adjustments, increased by 5% at CER. This was in line with the increase in core operating profit. Net working capital absorbed an additional CHF 714 million of cash, driven by the reasons described above in the 'Financial position' section. Capital expenditure was higher, due to manufacturing investments in the US and Japan as well as site developments in the US. Investments in intangible assets were lower compared to the prior year. Cash outflows for mergers and acquisitions, such as the Telavant asset acquisition, are not included in the definition of free cash flow.

Diagnostics Division operating results

Diagnostics Division operating results

	2023 (CHF m)	2022 (CHF m)	% change (CHF)	% change (CER)
IFRS results				
Sales	14,104	17,730	–20	–13
Other revenue	58	68	–15	–12
Revenue	**14,162**	**17,798**	**–20**	**–13**
Cost of sales	(7,274)	(8,697)	–16	–12
Research and development	(1,848)	(1,841)	0	+5
Selling, general and administration	(3,042)	(3,170)	–4	+3
Other operating income (expense)	173	59	+193	+214
Operating profit	**2,171**	**4,149**	**–48**	**–32**
– Margin, % of sales	15.4	23.4	–8.0	–5.2
Core results [a]				
Sales	14,104	17,730	–20	–13
Other revenue	58	68	–15	–12
Revenue	**14,162**	**17,798**	**–20**	**–13**
Cost of sales	(6,908)	(8,510)	–19	–15
Research and development	(1,747)	(1,835)	–5	–1
Selling, general and administration	(2,899)	(3,115)	–7	0
Other operating income (expense)	60	43	+40	+50
Core operating profit	**2,668**	**4,381**	**–39**	**–24**
– Margin, % of sales	18.9	24.7	–5.8	–3.2
Financial position				
Net working capital	3,248	3,268	–1	+11
Other net operating assets	12,690	13,250	–4	+3
Net operating assets	**15,938**	**16,518**	**–4**	**+5**
Free cash flow [b]				
Operating free cash flow	1,677	3,382	–50	–35
– Margin, % of sales	11.9	19.1	–7.2	–4.8

a) See pages 172–176 for the definition of core results.
b) See pages 176–178 for the definition of free cash flow.

Effective 1 January 2023, the Group has made certain presentational and cost allocation changes to the income statement. The comparative information for 2022 has been restated accordingly. Details are given on page 45.

Sales

The Diagnostics Division reported sales of CHF 14.1 billion, a decline of 13% at CER due to the anticipated significant drop in demand for COVID-19-related tests. Sales in the division's base business increased by 7% at CER and across all regions, with immunodiagnostic products, particularly cardiac tests, being the main growth drivers. The Diagnostics Division's portfolio of COVID-19 tests generated sales of CHF 0.8 billion in 2023 (2022: CHF 4.1 billion), a decline of 80% at CER.

Diagnostics Division – Sales by customer area

	2023 (CHF m)	2022 (CHF m)	% change (CER)	% of sales (2023)	% of sales (2022)
Core Lab	7,750	7,775	+9	55.0	43.9
Molecular Lab	2,220	3,450	–30	15.7	19.5
Pathology Lab	1,388	1,318	+14	9.8	7.4
Point of Care	1,379	3,589	–58	9.8	20.2
Diabetes Care	1,367	1,598	–4	9.7	9.0
Total sales	**14,104**	**17,730**	**–13**	**100**	**100**

Core Lab. This customer area focuses on central labs and provides diagnostics solutions in the areas of immunoassays, clinical chemistry and custom biotech. Sales increased by 9% at CER due to the 10% growth in immunodiagnostic products, such as cardiac and oncology tests, and the 10% growth in the clinical chemistry business. Sales grew across all regions, with the largest contributions to the sales growth coming from the Asia-Pacific and Europe, Middle East and Africa (EMEA) regions, which grew by 10% and 9%, respectively.

Molecular Lab. This customer area focuses on molecular labs and provides diagnostics solutions for the detection and monitoring of pathogens, donor screening, sexual health and genomics. Sales declined by 30% due to lower COVID-19-related sales for SARS-CoV-2 assays on the cobas 6800/8800 systems. Growth in the underlying base business included higher sales from blood screening as well as from diagnostics solutions for the detection and monitoring of cervical cancer and from the virology base business.

Pathology Lab. This customer area focuses on pathology labs and provides diagnostics solutions for tissue biopsies and companion diagnostics. These are targeted diagnostics to aid in the choice of specific therapies for each patient. Sales increased by 14% and across all regions due to growth in the advanced staining and the companion diagnostics businesses.

Point of Care. This customer area provides diagnostics solutions immediately at the point of care, such as in emergency rooms, general practitioners' practices and directly with patients, and includes the SARS-CoV-2 Rapid Antigen tests and blood gas and electrolyte (BGE) tests. Lower sales of the SARS-CoV-2 Rapid Antigen test were the main driver of the 58% sales decrease. There was growth in the base business, driven by the Liat molecular point-of-care product line.

Diabetes Care. This customer area provides diagnostics solutions for patients and healthcare professionals enabling integrated personalised diabetes management. Sales decreased by 4% driven by the continued contraction of the blood glucose monitoring market in the US and major European markets, due to people switching to continuous glucose monitoring systems.

Diagnostics Division – Sales by region

	2023 (CHF m)	2022 (CHF m)	% change (CER)	% of sales (2023)	% of sales (2022)
Europe, Middle East and Africa (EMEA)	4,768	5,888	–13	33.8	33.2
North America	3,826	5,141	–21	27.1	29.0
– *of which US*	*3,424*	*4,518*	*–19*	*24.3*	*25.5*
Asia-Pacific	4,496	5,639	–11	31.9	31.8
– *of which China*	*2,475*	*2,580*	*+7*	*17.5*	*14.6*
Latin America	1,014	1,062	+14	7.2	6.0
Total sales	**14,104**	**17,730**	**–13**	**100**	**100**

The decrease in global sales was due to the sharp decline in demand for COVID-19 tests. This was partly offset by growth in the division's base business, with sales increasing 7% at CER and across all regions. This was led by higher sales of immunodiagnostic products, notably in the Asia-Pacific region, particularly in China, and in Europe, Middle East and Africa (EMEA).

Operating results

Effective 1 January 2023, the Group has made certain presentational and cost allocation changes to the income statement. The comparative information for 2022 has been restated accordingly. Details are given on page 45.

Diagnostics Division – Other revenue

	2023 (CHF m)	2022 (CHF m)	% change (CER)
Royalty income	43	61	–28
Profit-share income	0	0	–
Other income from collaboration and out-licensing agreements	2	0	–
Other	13	7	+101
Total – IFRS and Core basis	**58**	**68**	**–12**

Other revenue decreased by 12% at CER driven by the base effect of lower royalty income following the settlement of a patent dispute in Diabetes Care in 2022.

Diagnostics Division – Cost of sales

	2023 (CHF m)	2022 (CHF m)	% change (CER)
Manufacturing cost of goods sold and period costs	(6,774)	(8,377)	–15
Royalty expenses	(125)	(130)	–2
Amortisation of commercial software intangible assets	(2)	(2)	+44
Impairment of property, plant and equipment and right-of-use assets	(7)	(1)	+425
Cost of sales – Core basis	**(6,908)**	**(8,510)**	**–15**
Global restructuring plans	(232)	(44)	+440
Amortisation of intangible assets	(134)	(143)	–3
Total – IFRS basis	**(7,274)**	**(8,697)**	**–12**

Core cost of sales decreased by 15% at CER due to lower sales volumes of COVID-19-related products. The decrease was higher than the sales decline of 13% because of the product mix from lower sales volumes of SARS-CoV-2 Rapid Antigen tests. As a percentage of sales, the core cost of sales ratio increased by 1.0 percentage points to 49.0%. Global restructuring plan costs were mainly employee-related expenses as well as impairments of property, plant and equipment following productivity measures and manufacturing and supply chain optimisations.

Diagnostics Division – Research and development

	2023 (CHF m)	2022 (CHF m)	% change (CER)
Research and development – Core basis	**(1,747)**	**(1,835)**	**–1**
Global restructuring plans	(75)	2	–
Amortisation of intangible assets	(7)	(8)	–1
Impairment of intangible assets	(19)	0	–
Total – IFRS basis	**(1,848)**	**(1,841)**	**+5**

Core costs decreased by 1% at CER driven by targeted productivity initiatives. Digital solutions and sequencing represented significant areas of spending. In addition, investments continued in diabetes solutions and mass spectrometry. As a percentage of sales, research and development core costs increased to 12.4% from 10.3% in 2022. Global restructuring costs from portfolio prioritisation and other measures to drive productivity were incurred for employee-related matters and the termination of contractual obligations.

Diagnostics Division – Selling, general and administration

	2023 (CHF m)	2022 (CHF m)	% change (CER)
Marketing and distribution	(2,477)	(2,668)	0
Administration	(400)	(428)	0
Business taxes and capital taxes	(22)	(23)	+6
Other general items	0	4	–
Selling, general and administration – Core basis	**(2,899)**	**(3,115)**	**0**
Global restructuring plans	(124)	(34)	+299
Amortisation of intangible assets	(19)	(21)	–7
Total – IFRS basis	**(3,042)**	**(3,170)**	**+3**

Core selling, general and administration costs remained stable at CER. Marketing and distribution costs included a drop in distribution costs related to SARS-CoV-2 Rapid Antigen tests that was partly offset by higher inventory write-offs. Administration costs also remained stable. On a core basis, selling, general and administration costs as a percentage of sales increased to 20.6% compared to 17.6% in 2022. Costs for global restructuring plans primarily comprised employee-related expenses following productivity measures to remove organisational duplication and drive commercial effectiveness.

Diagnostics Division – Other operating income (expense)

	2023 (CHF m)	2022 (CHF m)	% change (CER)
Gains (losses) on disposal of property, plant and equipment and right-of-use assets	3	0	–
Gains (losses) on divestment of subsidiaries	1	1	+4
Other income (expense)	56	42	+45
Other operating income (expense) – Core basis	**60**	**43**	**+50**
Global restructuring plans	(6)	0	–
Mergers and acquisitions and alliance transactions	(5)	14	–
Legal and environmental cases	124	2	Over +500
Total – IFRS basis	**173**	**59**	**+214**

Core other operating income (expense) increased by 50% at CER. Mergers and acquisitions and alliance transaction costs in 2022 included income of CHF 27 million from the release of contingent consideration provisions. The income from legal and environmental cases in 2023 was due to the reversal of legal provisions.

Financial position

Diagnostics Division – Net operating assets

	2023 (CHF m)	2022 (CHF m)	% change (CHF)	% change (CER)	Movement: Transactions (CHF m)	Movement: CTA and other (CHF m)
Trade receivables	3,118	3,108	0	+14	362	(352)
Inventories	2,900	3,346	−13	−8	(278)	(168)
Trade payables	(1,097)	(1,282)	−14	−6	101	84
Net trade working capital	**4,921**	**5,172**	**−5**	**+5**	**185**	**(436)**
Other receivables (payables)	(1,673)	(1,904)	−12	−5	111	120
Net working capital	**3,248**	**3,268**	**−1**	**+11**	**296**	**(316)**
Property, plant and equipment	6,997	7,016	0	+7	460	(479)
Right-of-use assets	299	239	+25	+37	85	(25)
Goodwill and intangible assets	6,193	6,829	−9	−2	(128)	(508)
Provisions	(766)	(832)	−8	−2	17	49
Other assets (liabilities)	(33)	(2)	Over +500	Over +500	(34)	3
Other net operating assets	**12,690**	**13,250**	**−4**	**+3**	**400**	**(960)**
Net operating assets	**15,938**	**16,518**	**−4**	**+5**	**696**	**(1,276)**

The absolute amount of the movement between the 2023 and 2022 consolidated balances reported in Swiss francs is split between actual 2023 transactions (translated at average rates for 2022) and the currency translation adjustment (CTA) that arises on consolidation. The 2023 transactions include non-cash movements and therefore the movements in this table are not the same as the amounts shown in the operating free cash flow (which only includes the cash movements). A full consolidated balance sheet is given on page 49 of the Annual Financial Statements, and a reconciliation between that balance sheet and the information given above is on pages 179–180.

Currency translation effects on balance sheet amounts. Compared to the start of the year the Swiss franc appreciated against most currencies, with the US dollar having a significant negative translation effect on the net operating assets of the Diagnostics Division. The Diagnostics Division does not have a significant net asset position in Japanese yen and so the appreciation of the Swiss franc against the Japanese yen had only a minor impact. The exchange rates used are given on page 32.

Net working capital. The 11% increase in net working capital was driven by higher trade receivables. These increased by 14% due to higher sales in the last quarter of 2023 compared to the same period of 2022 and also due to the base effect from higher collections towards the end of 2022. Inventories decreased by 8% due to lower inventory levels of COVID-19-related products. Trade payables decreased by 6% compared to the relatively high balances at the end of 2022. The decrease in net liability for other receivables (payables) came from higher employee-related accruals in 2022.

Other net operating assets. Property, plant and equipment increased as a result of higher instrument placements and from site investments in Germany and the US. Goodwill and intangible assets decreased due to the regular amortisation charges. Provisions included a release of legal provisions that was partially offset by increased restructuring provisions following the launch of several productivity initiatives.

Free cash flow

Diagnostics Division – Operating free cash flow

	2023 (CHF m)	2022 (CHF m)	% change (CHF)	% change (CER)
Operating profit	**2,171**	**4,149**	**–48**	**–32**
Depreciation, amortisation and impairment	1,465	1,434	+2	+9
Provisions	(1)	(225)	–100	–98
Equity compensation plans	113	102	+11	+15
Other	366	391	–6	0
Operating profit cash adjustments	**1,943**	**1,702**	**+14**	**+21**
Operating profit, net of operating cash adjustments	**4,114**	**5,851**	**–30**	**–17**
(Increase) decrease in net working capital	(551)	(706)	–22	–8
Investments in property, plant and equipment	(1,722)	(1,619)	+6	+14
Principal portion of lease liabilities paid	(112)	(118)	–5	+2
Investments in intangible assets	(52)	(26)	+100	+103
Operating free cash flow	**1,677**	**3,382**	**–50**	**–35**
– as % of sales	11.9	19.1	–7.2	–4.8

For the definition of free cash flow and a detailed breakdown see pages 176–178.

Effective 1 January 2023, the Group has made certain presentational and cost allocation changes to the income statement. These changes have a consequential impact on the divisional free cash flow, although total Group free cash flow is unaffected. The comparative information for 2022 has been restated accordingly. Details are given on page 45.

The operating free cash flow of the Diagnostics Division decreased by 35% at CER (decrease of 50% in CHF) driven by the operating results of the business. The cash generation of the business, measured by the operating profit, net of operating cash adjustments, decreased by 17% compared to the 24% decrease in the core operating profit because of lower utilisations of provisions and higher non-cash expenses. Net working capital absorbed CHF 0.6 billion of cash in 2023 which was attributable to the increased receivables as well as the settlement of relatively high payables and accruals at the end of 2022 as described above in the 'Financial position' section. Capital expenditure increased due to higher instrument placements as well as site investments in Germany and the US.

Corporate operating results

Effective 1 January 2023, the Group has made certain presentational and cost allocation changes to the income statement. The comparative information for 2022 has been restated accordingly. Details are given on page 45.

Corporate – Selling, general and administration

	2023 (CHF m)	2022 (CHF m)	% change (CER)
Administration	(3,389)	(3,320)	+5
Business taxes and capital taxes	(15)	(9)	+81
Other general items	0	1	–100
Selling, general and administration – Core basis	**(3,404)**	**(3,328)**	**+5**
Global restructuring plans	(490)	(105)	+372
Total – IFRS basis	**(3,894)**	**(3,433)**	**+16**

Selling, general and administration costs increased by 5% at CER on a core basis. Administration costs were higher due to increased project costs and demand for informatics and human resources. The increase was also related to the transfer of building, equipment and energy costs from the Pharmaceuticals and Diagnostics Divisions. Total costs on an IFRS basis increased by 16% due to a higher level of restructuring activities mainly due to the business process transformation to simplify the systems landscape and reduce process complexity and also for transformations in informatics.

Corporate – Other operating income (expense)

	2023 (CHF m)	2022 (CHF m)	% change (CER)
Other income (expense)	(13)	(11)	+21
Other operating income (expense) – Core basis	**(13)**	**(11)**	**+21**
Global restructuring plans	1	1	0
Legal and environmental cases	(2)	4	–
Total – IFRS basis	**(14)**	**(6)**	**+128**

Corporate financial position and free cash flow

	2023 (CHF m)	2022 (CHF m)	% change (CER)
Financial position			
Net working capital	(487)	(337)	+48
Other net operating assets	158	182	–6
Net operating assets	**(329)**	**(155)**	**+113**
Free cash flow			
Operating free cash flow	(3,637)	(3,403)	+10

The change in net operating assets came from a shift of net working capital and property, plant and equipment for functions with global accountability such as informatics, human resources and finance from the Pharmaceuticals and Diagnostics Divisions. The operating free cash flow includes costs of corporate functions such as informatics, human resources, finance and procurement, and also restructuring costs for the business process transformation. There was an increased outflow mainly due to higher restructuring activities, partially offset by higher payables.

Foreign exchange impact on operating results

The Group's exposure to movements in foreign currencies affecting its operating results, as expressed in Swiss francs, is summarised by the following key figures and comments.

Growth (reported in Swiss francs and at CER)

	% change (CHF)	% change (CER)
Pharmaceuticals Division		
Sales	–2	+6
Core operating profit	–5	+5
Operating free cash flow	0	+12
Diagnostics Division		
Sales	–20	–13
Core operating profit	–39	–24
Operating free cash flow	–50	–35
Group		
Sales	–7	+1
Core operating profit	–13	–1
Operating free cash flow	–11	+4

Exchange rates against the Swiss franc

	31 December 2023	Average 2023	31 December 2022	Average 2022
1 USD	0.84	0.90	0.92	0.95
1 EUR	0.93	0.97	0.98	1.00
100 JPY	0.60	0.64	0.69	0.73

The results expressed in Swiss francs were negatively impacted by the appreciation of the Swiss franc against many currencies. The sensitivity of Group sales and core operating profit to a 1% change in average foreign currency exchange rates against the Swiss franc during 2023 is shown in the table below.

Currency sensitivities

Impact of 1% increase in average exchange rate versus the Swiss franc	Sales (CHF m)	Core operating profit (CHF m)
US dollar	280	90
Euro	88	31
Japanese yen	45	46
All other currencies	158	86

The Group's revenues are primarily generated from sales of products to customers. Such revenues are mainly received in the local currency of the customer's home market, although in certain emerging markets invoicing is made in major international currencies such as the US dollar and euro. Cost of sales, marketing and some administration costs follow the same currency pattern as sales. The majority of research and development activities take place at the Group's global research facilities, and therefore the costs are mainly concentrated in US dollars, Swiss francs and euros. Administration costs are incurred at central locations in the US, Switzerland and Germany, and increasingly at shared service centres in other locations. Chugai's revenues and costs are denominated in Japanese yen.

Treasury and taxation results

Treasury and taxation results

	2023 (CHF m)	2022 (CHF m)	% change (CHF)	% change (CER)
IFRS results				
Operating profit	15,395	17,476	−12	+3
Financing costs	(996)	(665)	+50	+59
Other financial income (expense)	(320)	(484)	−34	−24
Profit before taxes	**14,079**	**16,327**	**−14**	**+1**
Income taxes	(1,721)	(2,796)	−38	−27
Net income	**12,358**	**13,531**	**−9**	**+7**
Attributable to				
– Roche shareholders	11,498	12,421	−7	+9
– Non-controlling interests	860	1,110	−23	−15
Core results[a]				
Operating profit	19,240	22,173	−13	−1
Financing costs	(980)	(686)	+43	+52
Other financial income (expense)	(320)	(528)	−39	−30
Profit before taxes	**17,940**	**20,959**	**−14**	**−2**
Income taxes	(2,136)	(3,429)	−38	−28
Net income	**15,804**	**17,530**	**−10**	**+3**
Attributable to				
– Roche shareholders	14,927	16,401	−9	+5
– Non-controlling interests	877	1,129	−22	−15
Financial position				
Net debt	(18,699)	(15,584)	+20	+26
Lease liabilities	(1,573)	(1,193)	+32	+44
Pensions	(3,360)	(3,604)	−7	0
Income taxes	4,376	2,908	+50	+68
Equity investments	547	671	−18	−6
Derivatives, net	(272)	(459)	−41	−32
Collateral, net	50	180	−72	−72
Interest payable	(187)	(140)	+34	+44
Associated companies and other, net	266	317	−16	−25
Total net assets (liabilities)	**(18,852)**	**(16,904)**	**+12**	**+16**
Free cash flow[b]				
Treasury activities	(860)	(530)	+62	+72
Taxes paid	(3,620)	(4,102)	−12	−5
Total	**(4,480)**	**(4,632)**	**−3**	**+4**

a) See pages 172–176 for the definition of core results.
b) See pages 176–178 for the definition of free cash flow.

Financing costs

Core financing costs were CHF 1.0 billion, an increase of 52% at CER compared to 2022. Interest expenses on debt increased by 44% at CER to CHF 797 million due to the issuance of new debt as well as an increase in interest rates which affected short-term borrowing costs. A full analysis of financing costs is given in Note 4 to the Annual Financial Statements.

Other financial income (expense)

Core other financial income (expense) was a net expense of CHF 320 million compared to a net expense of CHF 528 million in 2022. The core income from equity securities, which reflects the fair value changes in the Roche Venture Fund investments as well as gains or losses realised upon sale of those investments, was a gain of CHF 4 million compared to a loss of CHF 123 million in 2022. The net foreign exchange results, which reflect hedging costs and gains and losses on unhedged positions, were net losses of CHF 243 million (2022: net losses of CHF 278 million). Losses on the net monetary positions in hyperinflationary economies in Argentina and Türkiye were CHF 233 million (2022: losses of CHF 70 million) with the increase following from the devaluation in Argentina in December 2023. A full analysis of other financial income (expense) is given in Note 4 to the Annual Financial Statements.

Income taxes

Analysis of the Group's effective tax rate

			2023			2022
	Profit before tax (CHF m)	Income taxes (CHF m)	Tax rate (%)	Profit before tax (CHF m)	Income taxes (CHF m)	Tax rate (%)
Group's effective tax rate – Core basis	**17,940**	**(2,136)**	**11.9**	**20,959**	**(3,429)**	**16.4**
Global restructuring plans	(2,038)	403	19.8	(969)	193	19.9
Goodwill and intangible assets	(1,910)	115	6.0	(3,770)	515	13.7
Mergers and acquisitions and alliance transactions	(25)	4	16.0	65	1	–
Legal and environmental cases	112	(39)	34.8	42	(8)	19.0
Pension plan settlements	0	0	–	0	0	–
Normalisation of equity compensation plan tax benefit	0	(68)	–	0	(68)	–
Group's effective tax rate – IFRS basis	**14,079**	**(1,721)**	**12.2**	**16,327**	**(2,796)**	**17.1**

The Group's effective core tax rate decreased by 4.5 percentage points to 11.9% in 2023. The decrease was due to the impact from the resolution of several tax disputes which reduced the Group's effective core tax rate by 4.3 percentage points in 2023 compared to 1.5 percentage points in 2022. The lower percentage of core profit contribution coming from tax jurisdictions with tax rates higher than the Group's average tax rate further reduced the Group's effective core tax rate.

The effective tax rate on an IFRS basis decreased to 12.2% compared to 17.1% in 2022 due to the same impacts mentioned above and due to the deferred tax impacts from the global restructuring plans partially offset by the impairments of goodwill and certain intangible assets that are not tax deductible.

The Organisation for Economic Co-operation and Development (OECD) has published Global Anti-Base Erosion (GloBE) Model Rules (Pillar Two) which aim to ensure that large multinational enterprises pay a minimum level of tax on the income arising in each of the jurisdictions where they operate. The Model Rules provide for a template that jurisdictions can translate into domestic law as part of a common approach to applying top-up taxes on profits arising in a jurisdiction whenever the effective tax rate, determined on a jurisdictional basis in accordance with the Model Rules, is below the minimum rate of 15%. Various countries intend to enact or have enacted tax legislation to either fully or partially comply with Pillar Two, including Switzerland from 1 January 2024.

Further details of the Group's income tax expenses and related balance sheet positions, as well as the implementation of the Pillar Two Model Rules, are given in Note 5 to the Annual Financial Statements.

Financial position

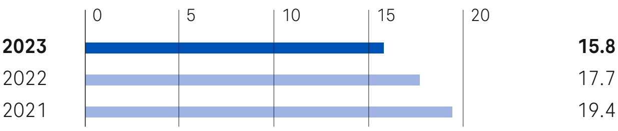
The increase in net debt was due to dividend payments of CHF 7.9 billion and the payments for the Telavant asset acquisition of CHF 6.2 billion, partly offset by the free cash flow of CHF 11.3 billion. Lease liabilities increased to CHF 1.6 billion mainly due to the new laboratory and office space lease for Foundation Medicine. The net pension liability remained stable at CER as the increase in fair value of plan assets was offset by lower discount rates. The net tax assets, consisting mostly of deferred tax assets, increased in total due to the decrease in current income tax liabilities following the resolution of tax disputes in 2023. At 31 December 2023 the Group held equity investments with a market value of CHF 0.5 billion, which consist mostly of holdings in biotechnology and other pharmaceuticals companies which were acquired as part of licensing transactions and scientific collaborations or as investments of the Roche Venture Fund. The net derivative liabilities decreased to CHF 0.3 billion as a result of interest rate and exchange rate movements.

Free cash flow

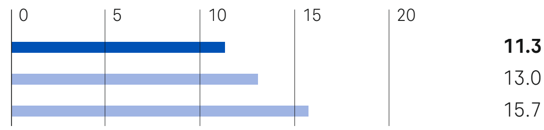
The net cash outflow from treasury activities was CHF 0.9 billion compared to an outflow of CHF 0.5 billion in 2022. This was due to increased interest payments as a result of the newly issued debt and higher interest rates, as well as additional pension contributions to certain of the Group's pension plans in the US. Total taxes paid in 2023 were down by 5% at CER, driven by lower tax payments in the US.

Cash flows and net debt

Operating free cash flow in billions of CHF



Free cash flow in billions of CHF



Free cash flow in millions of CHF

	Pharmaceuticals	Diagnostics	Corporate	Group
2023				
Operating profit – IFRS basis	17,132	2,171	(3,908)	15,395
Operating profit cash adjustments	4,316	1,943	209	6,468
Operating profit, net of operating cash adjustments	**21,448**	**4,114**	**(3,699)**	**21,863**
(Increase) decrease in net working capital	(714)	(551)	158	(1,107)
Investments in property, plant and equipment	(1,936)	(1,722)	(84)	(3,742)
Principal portion of lease liabilities paid	(215)	(112)	(12)	(339)
Investments in intangible assets	(855)	(52)	0	(907)
Operating free cash flow	**17,728**	**1,677**	**(3,637)**	**15,768**
Treasury activities				(860)
Taxes paid				(3,620)
Free cash flow				**11,288**
2022				
Operating profit – IFRS basis	16,766	4,149	(3,439)	17,476
Operating profit cash adjustments	5,768	1,702	102	7,572
Operating profit, net of operating cash adjustments	**22,534**	**5,851**	**(3,337)**	**25,048**
(Increase) decrease in net working capital	(1,745)	(706)	33	(2,418)
Investments in property, plant and equipment	(1,744)	(1,619)	(86)	(3,449)
Principal portion of lease liabilities paid	(274)	(118)	(13)	(405)
Investments in intangible assets	(1,077)	(26)	0	(1,103)
Operating free cash flow	**17,694**	**3,382**	**(3,403)**	**17,673**
Treasury activities				(530)
Taxes paid				(4,102)
Free cash flow				**13,041**

For the definition of free cash flow and a detailed breakdown see pages 176–178.

Effective 1 January 2023, the Group has made certain presentational and cost allocation changes to the income statement. These changes have a consequential impact on the divisional free cash flow, although total Group free cash flow is unaffected. The comparative information for 2022 has been restated accordingly. Details are given on page 45.

The free cash flows expressed in Swiss francs were heavily impacted by the appreciation of the Swiss franc against many currencies. Both divisions reported a high level of cash generation; however, the level in the Diagnostics Division was lower due to the decrease in the COVID-19-related products business. Net working capital increased in both divisions, although at lower rate than in the prior year, and this had a positive impact on the growth of the operating free cash flow. There was also increased capital expenditure in both divisions. Interest payments were higher, driven by the newly issued debt and higher short-term interest rates, while tax payments were lower.

Net debt in millions of CHF

At 1 January 2023	
Cash and cash equivalents	4,991
Marketable securities	4,776
Long-term debt	(21,391)
Short-term debt	(3,960)
Net debt at beginning of period	**(15,584)**
Change in net debt during 2023	
Free cash flow	11,288
Dividend payments	(7,926)
Transactions in own equity instruments	(1,144)
Mergers and acquisitions, net of divestments of subsidiaries	(6,242)
Hedging and collateral arrangements	155
Currency translation, fair value and other movements	754
Change in net debt	**(3,115)**
At 31 December 2023	
Cash and cash equivalents	5,376
Marketable securities	5,134
Long-term debt	(24,809)
Short-term debt	(4,400)
Net debt at end of period	**(18,699)**

For the definition of net debt see page 180.

Net debt – currency profile in millions of CHF

	Cash and marketable securities		Debt	
	2023	2022	2023	2022
US dollar	1,583	1,284	(20,072)	(18,707)
Euro	1,918	1,580	(3,489)	(1,606)
Swiss franc	2,098	2,985	(5,101)	(4,517)
Japanese yen	4,001	3,114	0	0
Other	910	804	(547)	(521)
Total	**10,510**	**9,767**	**(29,209)**	**(25,351)**

The net debt position of the Group at 31 December 2023 was CHF 18.7 billion, an increase of CHF 3.1 billion from 31 December 2022. The increase was primarily due to the CHF 6.2 billion payment for the Telavant asset acquisition. The free cash flow of CHF 11.3 billion covered the dividend payments of CHF 7.9 billion. The CHF 1.1 billion for transactions in own equity instruments related to purchases in connection with the Group's equity compensation plans.

Contractual obligations and commitments

The Group has obligations and commitments as set out in the table below. Carrying values are as shown in the consolidated balance sheet. The potential obligations shown are not discounted and are not risk-adjusted, unless otherwise noted below. Any amounts denominated in foreign currencies are translated into Swiss francs at the 31 December 2023 exchange rates. Provisions for legal and environmental matters are not included as the timing and amount of any cash outflow is uncertain and contingent on the development of the matters in question.

Contractual obligations and commitments as at 31 December 2023 in millions of CHF

	Potential obligation					
	Less than 1 year	1–2 years	2–5 years	Over 5 years	Total	Carrying value
On-balance sheet						
Debt [21]						
– Bonds and notes	4,616	4,038	11,326	15,251	35,231	27,812
– Other debt	1,397	0	0	0	1,397	1,397
Contingent consideration [20, 31]	35	123	89	76	323	95
Accounts payable [17]	4,325	0	0	0	4,325	4,325
Other non-current liabilities [18]	0	504	481	723	1,708	1,541
Other current liabilities (including those associated with assets held for sale) [19]	12,087	55	39	0	12,181	12,158
Unfunded defined benefit plans [26]	202	207	640	5,755	6,804	3,965
Total on-balance sheet commitments	**22,662**	**4,927**	**12,575**	**21,805**	**61,969**	**51,293**
Off-balance sheet						
Capital commitments for property, plant and equipment [8]	1,330	294	170	0	1,794	0
Leasing commitments [28]	56	21	70	71	218	0
Contract manufacturing commitments [31]	703	550	426	0	1,679	0
Alliance collaboration commitments [10]	974	1,194	765	756	3,689	0
Total off-balance sheet commitments	**3,063**	**2,059**	**1,431**	**827**	**7,380**	**0**
Total contractual commitments	**25,725**	**6,986**	**14,006**	**22,632**	**69,349**	**51,293**

References are to the Notes in the Annual Financial Statements.

Debt. This consists mainly of bonds and notes and includes the principal and interest on the Group's debt instruments. Other debt is mainly commercial paper. The carrying values are discounted based on the interest rates inherent in the instruments.

Contingent consideration. This consists of potential payments arising from mergers and acquisitions. The carrying values are risk-adjusted and discounted.

Unfunded defined benefit plans. These are mainly the pension plans in the Group's German affiliates, where the fully reserved pension obligations are used for self-financing of the local affiliates' operations. The carrying values are discounted. Future company contributions to the Group's funded plans are not shown in the above table.

Capital commitments for property, plant and equipment. These are non-cancellable commitments for the purchase and construction mainly at the Roche sites in Basel, Switzerland, South San Francisco, US, and Penzberg, Germany, and also at Chugai's new manufacturing sites in Japan.

Leasing commitments. These are the major non-cancellable commitments for signed lease agreements where the lease term has not yet started. These mainly relate to the Genentech site in South San Francisco.

Contract manufacturing commitments. These are the future minimum take-or-pay commitments to purchase inventories arising from the Group's major long-term agreements with external Contract Manufacturing Organisations (CMOs).

Alliance collaboration commitments. These are potential upfront and milestone payments that may become due from the Group's in-licensing and alliance arrangements and intangible asset purchase agreements, including asset acquisitions. Potential payments to alliance partners and for asset purchase agreements within the next three years are included assuming all projects currently in development are successful. Potential payments beyond three years are only included for asset purchase agreements.

Pensions and other post-employment benefits

Post-employment benefit plans are classified for IFRS Accounting Standards as 'defined contribution plans' if the Group pays fixed contributions into a separate fund or to a third-party financial institution and will have no further legal or constructive obligation to pay further contributions. In 2023 expenses for the Group's defined contribution plans were CHF 469 million (2022: CHF 452 million). All other plans are classified as 'defined benefit plans', even if the Group's potential obligation is minor or has a relatively remote possibility of arising. Plans are usually established as trusts which are independent of the Group and are funded by payments from the Group and by employees, but in some cases the plan is unfunded and the Group pays pensions to retired employees directly from its own financial resources. In 2023 expenses for the Group's defined benefit plans were CHF 603 million (2022: CHF 693 million).

Defined benefit plans

Funding status and balance sheet position

	2023 (CHF m)	2022 (CHF m)
Funded plans		
– Fair value of plan assets	17,083	16,598
– Defined benefit obligation	(15,495)	(14,733)
Over (under) funding	**1,588**	**1,865**
Unfunded plans		
– Defined benefit obligation	(3,965)	(4,001)
Total funding status	**(2,377)**	**(2,136)**
Limit on asset recognition	(1,032)	(1,526)
Reimbursement rights	49	58
Net recognised asset (liability)	**(3,360)**	**(3,604)**

Overall the funding status on an IFRS basis of the Group's funded defined benefit plans decreased to 110% compared to 113% at the start of the year. There was an increase in the defined benefit obligations following decreases in discount rates across main regions. This was partly offset by an increase in the fair value of plan assets. The limit on asset recognition was lower compared to the start of the year due to a smaller portion of the surplus of certain Swiss Pension plans being not recognisable under IFRS. The funding status of the pension funds is monitored by the local pension fund governance bodies as well as being closely reviewed at a Group level.

The unfunded plans are mainly those in the Group's German affiliates, where the fully reserved pension obligations are invested in the local affiliate's operations. The defined benefit obligations for unfunded plans decreased as the increase coming from lower discount rates was more than offset by the appreciation of the Swiss franc against the euro.

Full details of the Group's pensions and other post-employment benefits are given in Note 26 to the Annual Financial Statements.

Roche shares

Share price and market capitalisation (at 31 December)

	2023	2022	% change (CHF)
Share price (CHF)	261.40	358.40	–27
Non-voting equity security (*Genussschein*) price (CHF)	244.50	290.50	–16
Market capitalisation (billions of CHF)	197	239	–18

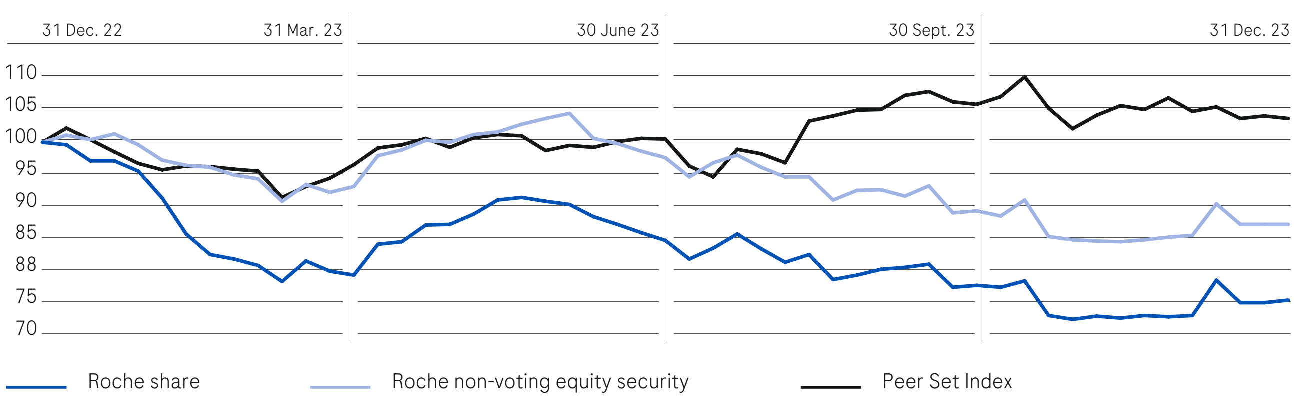
In 2023 Roche ranked number 13 among a peer group consisting of Roche and 15 other healthcare companies[a] for Total Shareholder Return (TSR), defined as share price growth plus dividends, measured in Swiss francs at actual exchange rates. At constant exchange rates (CER) Roche ranked number 14, with the year-end return being minus 24.6% for Roche shares and minus 12.8% for Roche non-voting equity securities. The combined performance of Roche shares and non-voting equity securities was minus 14.4% compared to a weighted average return for the peer group of plus 3.7% in CHF terms and plus 11.6% at CER. The development of the Roche share price during 2023 was influenced by the negative news flow of 2022 on the late-stage pipeline, an adverse impact from the appreciation of the Swiss franc and a decline in COVID-19-related sales.

Recently, there has been a convergence between Roche shares and Roche non-voting equity securities, lowering the price difference compared to the start of the year.

In 2023, the healthcare sector experienced slower growth when compared to the global equity markets, which improved performance as stronger-than-expected economic growth and a decrease in inflation mitigated recession fear. The Swiss Market Index (SMI) experienced positive growth, although it slightly lagged behind major US indices. Roche shares and non-voting equity securities underperformed the SMI.

a) Peer group for 2023: Abbott, AbbVie, Amgen, AstraZeneca, Bristol-Myers Squibb, Danaher, Eli Lilly, GlaxoSmithKline, Johnson & Johnson, Medtronic, Merck & Co., Novartis, Novo Nordisk, Pfizer, Roche and Sanofi.

Total Shareholder Return development



Source: Refinitiv Eikon. Data for Roche and the peer index has been re-based to 100 at 1 January 2023. The Peer Index was converted into Swiss francs at daily actual exchange rates. Currency fluctuations have an influence on the representation of the relative performance of Roche versus the peer index.

Proposed dividend

The Board of Directors is proposing an increase of 1% in the dividend for 2023 to CHF 9.60 per share and non-voting equity security (2022: CHF 9.50) for approval at the Annual General Meeting. This would be the 37th consecutive increase in the dividend. If the dividend proposal is approved by shareholders, dividend payments on the total shares and non-voting equity securities will amount to CHF 7.8 billion (2022: CHF 7.7 billion). This dividend proposal would result in a pay-out ratio (based on core net income) of 51.7% (2022: 46.8%). Based on the prices at the end of 2023, the dividend yield on the Roche share was 3.7% (2022: 2.7%) and the yield on the non-voting equity security was 3.9% (2022: 3.3%). Further information on the Roche securities is given on pages 181 to 183.

Information per share and non-voting equity security

	2023 (CHF)	2022 (CHF)	% change (CHF)
EPS – Basic	14.40	15.52	–7
EPS – Diluted	14.31	15.37	–7
Core EPS – Basic	18.69	20.49	–9
Core EPS – Diluted	18.57	20.30	–9
Equity attributable to Roche shareholders per share	36.77	35.03	+5
Dividend per share	9.60	9.50	+1

For further details please refer to Notes 22 and 29 of the Annual Financial Statements and page 176. The pay-out ratio is calculated as dividend per share divided by core earnings per share.

Debt

Issuance of new debt

During 2023 the Group completed the following debt offerings:

- 27 February 2023: EUR 1,250 million of fixed rate bonds issued in two tranches with coupons between 3.204% and 3.355% and maturing between August 2029 and February 2035.
- 13 November 2023: USD 5,200 million of fixed rate notes issued in four tranches with coupons between 5.265% and 5.593% and maturing between November 2026 and November 2033.
- Also on 13 November 2023: USD 300 million of floating rate notes issued at a rate equal to the Secured Overnight Financing Rate (SOFR) plus a margin of 0.74% and maturing in November 2026.
- 4 December 2023: EUR 1,500 million of fixed rate bonds issued in two tranches with coupons between 3.312% and 3.586% and maturing between December 2027 and December 2036.
- 15 December 2023: CHF 560 million of fixed rate bonds issued in three tranches with coupons between 1.600% and 1.950% and maturing between September 2028 and September 2038.

The Group received total aggregate net proceeds of CHF 8.2 billion from these issuances.

Redemption of debt

During 2023 the Group redeemed the following debt at the due date:

- 27 February 2023: notes with an outstanding amount of EUR 650 million and an effective interest rate of 0.63%.
- 29 August 2023: notes with an outstanding amount of GBP 76 million and an effective interest rate of 5.46%.
- 11 September 2023: notes with an outstanding amount of USD 750 million and an effective interest rate of 3.9%.
- 17 September 2023: notes with an outstanding amount of USD 390 million and an effective interest rate of 3.32%.

The combined cash outflow was CHF 1.8 billion and there was no gain or loss recorded on these redemptions.

Debt maturity

The maturity schedule of the Group's bonds and notes outstanding at 31 December 2023 is shown in the table below.

Bonds and notes: nominal amounts at 31 December 2023 by contractual maturity

	US dollar (USD m)	Euro (EUR m)	Swiss franc (CHF m)	Total[a] (USD m)	Total[a] (CHF m)
2024	2,689	0	750	3,578	3,020
2025	2,256	1,000	500	3,955	3,338
2026	3,050	0	425	3,553	3,000
2027	2,100	600	825	3,741	3,158
2028	3,900	0	140	4,066	3,432
2029–2033	4,850	750	1,940	7,978	6,734
2034 and beyond	4,053	1,400	530	6,230	5,259
Total	**22,898**	**3,750**	**5,110**	**33,101**	**27,941**

a) Total translated at 31 December 2023 exchange rates.

The Group plans to meet its debt obligations using existing liquid funds as well as cash generated from business operations. In 2023 the free cash flow was CHF 11.3 billion (2022: CHF 13.0 billion), which included the cash generated from operations as well as the payment of interest and taxes.

For short-term financing requirements, the Group has a commercial paper program in the US under which it can issue up to USD 7.5 billion of unsecured commercial paper notes and has committed credit lines of USD 7.5 billion available as back-stop lines. On 19 January 2024 the Group executed a short-term bridge facility agreement of USD 5.0 billion. Commercial paper notes totalling USD 1.0 billion were outstanding as of 31 December 2023 (31 December 2022: USD 1.9 billion). For longer-term financing the Group maintains high long-term investment-grade credit ratings of AA by Standard & Poor's, Aa2 by Moody's and AA by Fitch which should facilitate efficient access to international capital markets.

Further information on the Group's debt is given in Note 21 to the Annual Financial Statements.

Financial risks

At 31 December 2023 the Group had a net debt position of CHF 18.7 billion (2022: CHF 15.6 billion). The financial assets of the Group are managed in a conservative way with the objective to meet the Group's financial obligations at all times.

Asset allocation. Liquid funds are either held as cash or are invested in high-quality, investment-grade fixed income securities with an investment horizon to meet those liquidity requirements.

Cash and marketable securities

	2023 (CHF m)	2023 (% of total)	2022 (CHF m)	2022 (% of total)
Cash and cash equivalents	5,376	51	4,991	51
Money market instruments	4,621	44	4,192	43
Debt securities	512	5	583	6
Equity securities	1	0	1	0
Total cash and marketable securities	**10,510**	**100**	**9,767**	**100**

Credit risk. Credit risk arises from the possibility that counterparties to transactions may default on their obligations causing financial losses for the Group. The rating profile of the Group's CHF 10.5 billion of cash and fixed income marketable securities remained high with 93% being invested in the A–AAA range. The Group has signed netting and collateral agreements with the counterparties in order to mitigate counterparty risk on derivative positions. Bad debt expenses and overdue receivables remained at a relatively low level.

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. In addition to the current liquidity position, the Group has high cash generation ability. Those future cash flows will be used to repay debt instruments in the coming years. Free cash flow was CHF 11.3 billion as compared to CHF 13.0 billion in 2022.

The Roche Group continues to enjoy high long-term investment-grade credit ratings of AA by Standard & Poor's, Aa2 by Moody's and AA by Fitch. At the same time Roche is rated at the highest available short-term ratings by those agencies. In the event of financing requirements, the credit ratings of the Roche Group should permit efficient access to international capital markets, including the commercial paper market. The Group has committed credit lines with various financial institutions totalling USD 7.5 billion available as back-stop lines for the commercial paper program. As at 31 December 2023 no debt has been drawn under these credit lines. On 19 January 2024 the Group executed a short-term bridge facility agreement of USD 5.0 billion.

Market risk. Market risk arises from changing market prices of the Group's financial assets or financial liabilities. The exposures are predominantly related to changes in interest rates, foreign exchange rates and equity prices. The Group uses Value-at-Risk (VaR) to assess the impact of market risk on its financial instruments. VaR data indicates the value range within which a given financial instrument will fluctuate with a preset probability as a result of movements in market prices. The Group's VaR has increased since 31 December 2022 reflecting bond issuances during 2023.

Interest rate risk. Interest rate risk arises from movements in interest rates which could affect the Group's financial result or the value of the Group equity. The Group may use interest rate derivatives to manage its interest rate-related exposure and financial result.

Further information on financial risk management and financial risks and the VaR methodology is included in Note 31 to the Annual Financial Statements.

International Financial Reporting Standards

The Roche Group has been using International Financial Reporting Standards (IFRS Accounting Standards) to report its consolidated results since 1990.

New and revised standards applied in 2023

In 2023 the Group implemented various minor amendments to existing standards and interpretations which have no material impact on the Group's overall results and financial position.

See Note 34 to the Annual Financial Statements for further details.

Presentational and cost allocation changes

Effective 1 January 2023, the Group has made certain presentational and cost allocation changes to the income statement. This has been done to improve external comparability and to reflect changes in the internal reporting for functions with global accountability.

- The income statement now presents 'Selling, general and administration' costs, which is created from merging 'Marketing and distribution' costs and 'General and administration' costs.
- The income statement now presents 'Other revenue' in place of 'Royalties and other operating income'.
- The income statement now presents 'Other operating income (expense)' for non-revenue income and for expenses that do not fall into the regular functional costs.
- Allocations from functions with global accountability such as informatics, human resources and finance are no longer made to the Pharmaceuticals and Diagnostics Divisions.

These changes have no impact on sales, operating profit, net income and earnings per share of the Group as a whole, for both the IFRS and core basis. There is no change to the core results concept. The cost allocation changes will reduce costs allocated to divisions and increase divisional margins by around 4.0 to 5.0 percentage points on a core basis, based on the shape of the business at 1 January 2023. These changes have a consequential impact on the divisional free cash flow, although total Group free cash flow is unaffected.

Comparative information for 2022 has been restated. A reconciliation to the previously published results is provided in Note 34 to the Annual Financial Statements and on pages 172 to 176 for the core results.

Presentational changes to be applied in 2024

In October 2023 the Group announced that, effective 1 January 2024, the Foundation Medicine business will be moved under the responsibility of the Diagnostics Division from the Pharmaceuticals Division, while retaining Foundation Medicine's independence in this new reporting set-up. Accordingly from 1 January 2024 the results of the Foundation Medicine business will be reported as part of the Diagnostics Division, and this represents a change for the Group's operating segments in its financial reporting. These changes will have no impact on sales, operating profit, net income and earnings per share of the Group as a whole, for both the IFRS and core basis. There is no change to the core results concept.

No restatements have been made in the 2023 Annual Financial Statements for these changes. The changes will be applied retrospectively from 1 January 2024, and accordingly the 2023 results will be restated in the Interim and Annual Financial Statements in 2024.

When these restatements are made Foundation Medicine sales of CHF 347 million in 2023 will be restated from the Pharmaceuticals Division to the Diagnostics Division. The restated core operating profit margin for 2023 of the Pharmaceuticals Division will increase by 0.9 percentage points to 45.7%, while the corresponding margin of the Diagnostics Division will decrease by 2.2 percentage points to 16.7%.

Roche Group Consolidated Financial Statements

Roche Group consolidated income statement for the year ended 31 December 2023 in millions of CHF

	Pharmaceuticals	Diagnostics	Corporate	Group
Sales [2, 3]	44,612	14,104	–	58,716
Other revenue [2, 3]	1,667	58	–	1,725
Revenue [2, 3]	**46,279**	**14,162**	**–**	**60,441**
Cost of sales	(9,083)	(7,274)	–	(16,357)
Research and development [2]	(12,352)	(1,848)	–	(14,200)
Selling, general and administration	(7,945)	(3,042)	(3,894)	(14,881)
Other operating income (expense)	233	173	(14)	392
Operating profit [2]	**17,132**	**2,171**	**(3,908)**	**15,395**
Financing costs [4]				(996)
Other financial income (expense) [4]				(320)
Profit before taxes				**14,079**
Income taxes [5]				(1,721)
Net income				**12,358**
Attributable to				
– Roche shareholders [22]				11,498
– Non-controlling interests [24]				860
Earnings per share and non-voting equity security [29]				
Basic (CHF)				14.40
Diluted (CHF)				14.31

Roche Group consolidated income statement for the year ended 31 December 2022 (restated)[a) in millions of CHF

	Pharmaceuticals	Diagnostics	Corporate	Group
Sales[2, 3]	45,551	17,730	–	63,281
Other revenue[2, 3]	2,465	68	–	2,533
Revenue[2, 3]	**48,016**	**17,798**	**–**	**65,814**
Cost of sales	(11,040)	(8,697)	–	(19,737)
Research and development[2]	(13,384)	(1,841)	–	(15,225)
Selling, general and administration	(7,598)	(3,170)	(3,433)	(14,201)
Other operating income (expense)	772	59	(6)	825
Operating profit[2]	**16,766**	**4,149**	**(3,439)**	**17,476**
Financing costs[4]				(665)
Other financial income (expense)[4]				(484)
Profit before taxes				**16,327**
Income taxes[5]				(2,796)
Net income				**13,531**
Attributable to				
– Roche shareholders[22]				12,421
– Non-controlling interests[24]				1,110
Earnings per share and non-voting equity security[29]				
Basic (CHF)				15.52
Diluted (CHF)				15.37

a) Effective 1 January 2023, the Group has made certain presentational and cost allocation changes to the income statement. The information for 2022 has been restated accordingly. Details and a reconciliation to the previously published income statement are disclosed in Note 34.

Roche Group consolidated statement of comprehensive income in millions of CHF

	Year ended 31 December 2023	2022
Net income recognised in income statement	**12,358**	**13,531**
Other comprehensive income (OCI)		
Remeasurements of defined benefit plans [22]	(123)	546
Fair value changes on equity investments at fair value through OCI [22]	(64)	30
Items that will never be reclassified to the income statement	**(187)**	**576**
Fair value changes on debt securities at fair value through OCI [22]	13	(33)
Cash flow hedges [22]	(12)	(62)
Currency translation of foreign operations [22]	(2,644)	(1,703)
Items that are or may be reclassified to the income statement	**(2,643)**	**(1,798)**
Other comprehensive income, net of tax	**(2,830)**	**(1,222)**
Total comprehensive income	**9,528**	**12,309**
Attributable to		
– Roche shareholders [22]	9,272	11,738
– Non-controlling interests [24]	256	571
Total	**9,528**	**12,309**

Roche Group consolidated balance sheet in millions of CHF

	31 December 2023	31 December 2022	31 December 2021
Non-current assets			
Property, plant and equipment [8]	21,724	23,075	23,163
Right-of-use assets [28]	1,215	1,133	1,249
Goodwill [9]	9,390	10,820	10,809
Intangible assets [10]	14,828	9,685	12,117
Deferred tax assets [5]	6,882	6,427	5,583
Defined benefit plan assets [26]	1,019	957	1,498
Other non-current assets [15]	1,964	2,238	2,271
Total non-current assets	**57,022**	**54,335**	**56,690**
Current assets			
Inventories [11]	7,749	8,605	7,715
Accounts receivable [12]	11,021	11,606	10,806
Current income tax assets [5]	344	313	320
Other current assets [16]	3,130	3,525	3,755
Marketable securities [13]	5,134	4,776	6,181
Cash and cash equivalents [14]	5,376	4,991	6,850
Assets held for sale [6]	692	0	0
Total current assets	**33,446**	**33,816**	**35,627**
Total assets	**90,468**	**88,151**	**92,317**
Non-current liabilities			
Long-term debt [21]	(24,809)	(21,391)	(16,076)
Deferred tax liabilities [5]	(593)	(645)	(628)
Defined benefit plan liabilities [26]	(4,379)	(4,561)	(6,103)
Provisions [20]	(1,059)	(1,111)	(1,442)
Other non-current liabilities [18]	(1,541)	(1,189)	(1,307)
Total non-current liabilities	**(32,381)**	**(28,897)**	**(25,556)**
Current liabilities			
Short-term debt [21]	(4,400)	(3,960)	(15,122)
Current income tax liabilities [5]	(2,257)	(3,187)	(3,002)
Provisions [20]	(1,684)	(2,248)	(2,526)
Accounts payable [17]	(4,325)	(4,556)	(4,637)
Other current liabilities [19]	(12,150)	(13,288)	(13,129)
Liabilities directly associated with assets held for sale [6]	(8)	0	0
Total current liabilities	**(24,824)**	**(27,239)**	**(38,416)**
Total liabilities	**(57,205)**	**(56,136)**	**(63,972)**
Total net assets	**33,263**	**32,015**	**28,345**
Equity			
Capital and reserves attributable to Roche shareholders [22]	29,315	27,992	24,489
Equity attributable to non-controlling interests [24]	3,948	4,023	3,856
Total equity	**33,263**	**32,015**	**28,345**

Roche Group consolidated statement of cash flows in millions of CHF

	Year ended 31 December 2023	2022 (restated)[a]
Cash flows from operating activities		
Cash generated from operations [30]	22,617	26,030
(Increase) decrease in net working capital	(1,107)	(2,418)
Payments made for defined benefit plans [26]	(743)	(655)
Utilisation of provisions [20]	(1,052)	(1,052)
Other operating cash flows	0	0
Income taxes paid [5]	(3,620)	(4,102)
Total cash flows from operating activities	**16,095**	**17,803**
Cash flows from investing activities		
Purchase of property, plant and equipment	(3,742)	(3,449)
Purchase of intangible assets	(907)	(1,103)
Disposal of property, plant and equipment	173	82
Disposal of intangible assets	0	0
Disposal of products	558	612
Business combinations [6]	0	0
Asset acquisitions [6]	(6,220)	(245)
Divestment of subsidiaries	1	1
Interest received (paid) and dividends received on marketable securities and other investments [30]	168	32
Sales of equity securities and debt securities	125	148
Purchases of equity securities and debt securities	(87)	(271)
Sales (purchases) of money market instruments and time accounts over three months, net	(745)	1,250
Other investing cash flows	33	19
Total cash flows from investing activities	**(10,643)**	**(2,924)**
Cash flows from financing activities		
Proceeds from issue of bonds and notes [21]	8,167	8,442
Redemption and repurchase of bonds and notes [21]	(1,751)	(1,750)
Increase (decrease) in commercial paper [21]	(806)	1,293
Increase (decrease) in other debt [21]	175	(13,683)
Hedging and collateral arrangements	155	(526)
Interest paid	(770)	(557)
Principal portion of lease liabilities paid [30]	(339)	(405)
Dividends paid [30]	(7,926)	(7,832)
Equity-settled equity compensation plans, net of transactions in own equity [27]	(1,144)	(1,257)
Other financing cash flows	0	0
Total cash flows from financing activities	**(4,239)**	**(16,275)**
Net effect of currency translation on cash and cash equivalents	(828)	(463)
Increase (decrease) in cash and cash equivalents	**385**	**(1,859)**
Cash and cash equivalents at 1 January	4,991	6,850
Cash and cash equivalents at 31 December [14]	**5,376**	**4,991**

a) Effective 1 January 2023, certain line items in the statement of cash flows for 2022 have been reclassified following certain presentational changes the Group made. Details and a reconciliation to the previously published statement of cash flows are disclosed in Note 34.

Roche Group consolidated statement of changes in equity in millions of CHF

	Share capital	Retained earnings	Fair value reserves	Hedging reserves	Translation reserves	Total	Non-controlling interests	Total equity
Year ended 31 December 2022								
At 1 January 2022	160	34,161	(60)	(60)	(9,712)	24,489	3,856	28,345
Net income recognised in income statement	–	12,421	–	–	–	12,421	1,110	13,531
Net change in fair value – financial assets at fair value through OCI	–	0	(2)	–	–	(2)	(1)	(3)
Cash flow hedges	–	–	–	(37)	–	(37)	(25)	(62)
Currency translation of foreign operations	–	–	3	5	(1,189)	(1,181)	(522)	(1,703)
Remeasurements of defined benefit plans	–	537	–	–	–	537	9	546
Total comprehensive income	**–**	**12,958**	**1**	**(32)**	**(1,189)**	**11,738**	**571**	**12,309**
Dividends	–	(7,446)	–	–	–	(7,446)	(406)	(7,852)
Share capital reduction [22]	(53)	53	–	–	–	–	–	–
Equity compensation plans, net of transactions in own equity	–	(786)	–	–	–	(786)	(1)	(787)
Changes in non-controlling interests [24]	–	(3)	–	–	–	(3)	3	–
At 31 December 2022	**107**	**38,937**	**(59)**	**(92)**	**(10,901)**	**27,992**	**4,023**	**32,015**
Year ended 31 December 2023								
At 1 January 2023	107	38,937	(59)	(92)	(10,901)	27,992	4,023	32,015
Net income recognised in income statement	–	11,498	–	–	–	11,498	860	12,358
Net change in fair value – financial assets at fair value through OCI	–	(11)	(40)	–	–	(51)	0	(51)
Cash flow hedges	–	–	–	(7)	–	(7)	(5)	(12)
Currency translation of foreign operations	–	–	2	9	(2,051)	(2,040)	(604)	(2,644)
Remeasurements of defined benefit plans	–	(128)	–	–	–	(128)	5	(123)
Total comprehensive income	**–**	**11,359**	**(38)**	**2**	**(2,051)**	**9,272**	**256**	**9,528**
Dividends	–	(7,590)	–	–	–	(7,590)	(334)	(7,924)
Equity compensation plans, net of transactions in own equity	–	(358)	–	–	–	(358)	2	(356)
Changes in non-controlling interests [24]	–	(1)	–	–	–	(1)	1	–
At 31 December 2023	**107**	**42,347**	**(97)**	**(90)**	**(12,952)**	**29,315**	**3,948**	**33,263**

Notes to the Roche Group Consolidated Financial Statements

1. General accounting principles

Basis of preparation

The consolidated financial statements (hereafter 'the Annual Financial Statements') of the Roche Group have been prepared in accordance with International Financial Reporting Standards (IFRS Accounting Standards) and comply with Swiss law. They have been prepared using the historical cost convention except for items that are required to be accounted for at fair value. They were approved for issue by the Board of Directors on 29 January 2024 and are subject to approval by the Annual General Meeting of shareholders on 12 March 2024.

These financial statements are the Annual Financial Statements of Roche Holding Ltd, a company registered in Switzerland, and its subsidiaries ('the Group').

A list of the accounting policies adopted by the Group in the preparation of the Annual Financial Statements and the changes in accounting policies in 2023 are provided in Note 34.

Key accounting judgements, estimates and assumptions

The preparation of the Annual Financial Statements requires management to make judgements, 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 ongoing basis and are based on historical experience and various other factors. Revisions to estimates are recognised in the period in which the estimate is revised. The following are considered to be the key accounting judgements, estimates and assumptions made and are believed to be appropriate based upon currently available information.

Revenue. The nature of the Group's business is such that many sales transactions do not have a simple structure and may consist of various performance obligations that are satisfied at different times. Contracts entered into in the Diagnostics Division typically include performance obligations for instruments (including those provided under leasing arrangements), reagents and other consumables, and services. Instruments may be sold in cash sales transactions at discounted prices. Where instruments are provided under operating lease arrangements, some or the entire lease revenue may be variable and subject to subsequent reagents sales. Major sources of estimation uncertainty are related to measurement of sales, net of discounts, for the related obligations, including their stand-alone selling prices. It requires judgement to determine when different obligations are satisfied, including whether enforceable purchase commitments for further obligations exist and when they arise. 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, other licensing fees, 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 judgement. Depending on the conclusion, this may result in all revenue being calculated at inception and either being recognised at once or spread over the term of a longer performance obligation.

Major sources of estimation uncertainty are related to the measurement of sales, which are recorded net of allowances for estimated rebates, chargebacks, cash discounts and estimates of product returns, all of which are established at the time of sale. All product sales allowances are based on estimates of the amounts earned or to be claimed on the related sales. At 31 December 2023 the Group had CHF 4,804 million in provisions and accruals for expected sales returns, chargebacks and other rebates, including Medicaid in the US and similar rebates in other countries (2022: CHF 4,767 million). The provisions and accruals relating to the US pharmaceuticals business amounted to CHF 2,044 million (2022: CHF 2,120 million), of which CHF 422 million (2022: CHF 510 million) were associated with expected sales returns. These estimates take into consideration historical experience, current contractual and statutory requirements, specific known market events and trends such as competitive pricing and new product introductions, estimated inventory levels, and the shelf life of products. If actual future results vary, these estimates need to be adjusted, with an effect on sales and earnings in the period of the adjustment.

Business combinations. The Group initially recognises the fair value of identifiable assets acquired, the liabilities assumed, any non-controlling interest and the consideration transferred in a business combination. Management judgement is particularly involved in the assessment of whether or not the net assets acquired constitute a business and in the recognition and fair value measurement of intellectual property, inventories, contingent liabilities and contingent consideration. In making this assessment, management applies judgement in considering the underlying economic substance of the items concerned in addition to the contractual terms. When considered appropriate as a result from its judgement, management also applies the optional 'concentration test' as set out in IFRS 3 'Business Combinations' to aid the assessment of whether a transaction represents a business combination or is simply in substance the purchase of a single asset or group of similar assets.

Impairment of property, plant and equipment, right-of-use assets, goodwill and intangible assets. At 31 December 2023 the Group had CHF 21,724 million in property, plant and equipment (see Note 8), CHF 1,215 million in right-of-use assets (see Note 28), CHF 9,390 million in goodwill (see Note 9) and CHF 14,828 million in intangible assets (see Note 10). Goodwill and 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. Other estimates relate to factors such as changes in discount rates, the planned use of buildings, machinery or equipment or closure of facilities, the presence of competition, technical obsolescence and lower-than-anticipated product sales, which could lead to shorter useful lives or impairment.

Impairment of financial assets. At 31 December 2023 the Group had CHF 440 million in allowance for doubtful accounts for trade and lease receivables (see Note 12). Key estimates for the allowance for doubtful accounts are mainly related to risk of default and expected loss rates. For making these estimates, inputs selected to calculate the allowance for doubtful accounts are based on the company's past experience, existing market conditions as well as forward-looking estimates at the end of each reporting period.

Pensions and other post-employment benefits. The Group operates a number of defined benefit plans, and the fair values of the recognised 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, inflation rate, expected mortality and medical cost trend rate assumptions. At 31 December 2023 the present value of the Group's defined benefit obligation was CHF 19,460 million (see Note 26). The actuarial assumptions used for those estimates may differ materially from actual results due to changes in market and economic conditions, longer or shorter lifespans of participants, and other changes in the factors being assessed. These differences could impact the defined benefit plan assets and liabilities recognised in the balance sheet in future periods.

Legal provisions. 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. At 31 December 2023 the Group had CHF 126 million in legal provisions. The status of significant legal cases is disclosed in Note 20. These estimates consider the specific circumstances of each legal case, 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 provisions. The Group provides for anticipated environmental remediation costs when there is a probable outflow of resources that can be reasonably estimated. At 31 December 2023 the Group had CHF 361 million in environmental provisions (see Note 20). 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 uncertain as assumptions are required related to the detection of previously unknown contamination, 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 other potentially responsible parties. The estimates could change substantially over time as new facts emerge and each environmental remediation progresses.

Contingent consideration provisions. The Group makes provision for the estimated fair value of contingent consideration arrangements arising from business combinations. At 31 December 2023 the Group had CHF 95 million in contingent consideration provisions (see Note 20) and the total potential payments under contingent consideration arrangements from business combinations could be up to CHF 323 million (see Note 31). Key estimates are required to determine the amounts of the expected payments to be provided for, by considering the possible scenarios of forecast sales and other performance criteria, the amount to be paid under each scenario, and the probability of each scenario, which is then discounted to a net present value. These estimates could change substantially over time as new facts emerge and each scenario develops.

Income taxes. At 31 December 2023 the Group had a current income tax net liability of CHF 1,913 million and a deferred tax net asset of CHF 6,289 million (see Note 5). Major sources of estimation uncertainty are related to the calculation 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 estimates of current and deferred tax balances 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 judgements include assessing whether arrangements contain a lease and determining the lease term. To assess whether a contract contains a lease requires judgement 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, judgement 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 exercise a termination option. Estimates include calculating the discount rate which is based on the incremental borrowing rate. At 31 December 2023 the Group had CHF 1,215 million in right-of-use assets and CHF 1,573 million in lease liabilities (see Note 28).

Where the Group is the lessor, the treatment of leasing transactions is mainly determined by whether the lease is considered to be an operating or finance lease, which requires judgement. In making this assessment, management looks at the substance of the lease, as well as the legal form, and makes a judgement about whether substantially all of the risks and rewards of ownership are transferred. Arrangements which do not take the legal form of a lease but that nevertheless convey the right to use an asset are also covered by such judgemental assessments.

Consolidation. The Group periodically undertakes transactions that may involve obtaining control or significant influence over other companies. These transactions include equity acquisitions, asset purchases and alliance agreements. In all such cases it requires judgement for management to make an assessment as to whether the Group has control or significant influence over the other company, and whether it should be consolidated as a subsidiary or accounted for as an associated company. In making this judgemental assessment, management considers the underlying economic substance of the transaction in addition to the contractual terms.

2. Operating segment information

The Group has two divisions, Pharmaceuticals and Diagnostics. Revenues are primarily generated from the sale of prescription pharmaceutical products and diagnostic instruments, reagents and consumables, respectively. Both divisions also derive revenues from the sale or licensing of products or technology to third parties. Residual operating activities from divested businesses and certain global activities are reported as 'Corporate'. These include the Corporate Executive Committee and global Group functions for informatics, communications, human resources, finance (including treasury and taxation), legal, safety and environmental services. Subdivisional information is also presented for the Roche Pharmaceuticals and Chugai operating segments within the Pharmaceuticals Division.

Divisional information in millions of CHF

	Pharmaceuticals		Diagnostics		Corporate		Group	
	2023	2022	2023	2022	2023	2022	2023	2022
Revenue from external customers								
Sales	44,612	45,551	14,104	17,730	–	–	58,716	63,281
Other revenue	1,667	2,465	58	68	–	–	1,725	2,533
Total	**46,279**	**48,016**	**14,162**	**17,798**	**–**	**–**	**60,441**	**65,814**
Revenue from other operating segments								
Sales	–	–	15	21	–	–	15	21
Other revenue	–	–	–	–	–	–	–	–
Elimination of interdivisional revenue							(15)	(21)
Total	**–**	**–**	**15**	**21**	**–**	**–**	**–**	**–**
Segment results								
Operating profit	17,132	16,766	2,171	4,149	(3,908)	(3,439)	15,395	17,476
Capital expenditure								
Business combinations	0	0	0	0	–	–	0	0
Asset acquisitions	6,219	240	0	51	–	–	6,219	291
Additions to property, plant and equipment	1,970	1,694	1,716	1,622	84	86	3,770	3,402
Additions to right-of-use assets	681	218	214	114	4	6	899	338
Additions to intangible assets	963	918	53	26	–	–	1,016	944
Total	**9,833**	**3,070**	**1,983**	**1,813**	**88**	**92**	**11,904**	**4,975**
Research and development								
Research and development costs	12,352	13,384	1,848	1,841	–	–	14,200	15,225
Other segment information								
Depreciation of property, plant and equipment	1,263	1,381	1,095	1,128	65	56	2,423	2,565
Depreciation of right-of-use assets	197	211	116	117	12	13	325	341
Amortisation of intangible assets	554	764	162	174	–	–	716	938
Impairment (reversal) of property, plant and equipment	277	108	73	15	0	0	350	123
Impairment (reversal) of right-of-use assets	319	5	0	0	0	0	319	5
Impairment of goodwill	591	0	0	0	–	–	591	0
Impairment of intangible assets	589	2,837	19	0	–	–	608	2,837
Equity compensation plan expenses	634	560	113	102	83	76	830	738

Effective 1 January 2023, the Group has made certain presentational and cost allocation changes to the income statement. The comparative information for 2022 has been restated accordingly. Details and a reconciliation to the previously published income statement are disclosed in Note 34.

Pharmaceuticals subdivisional information in millions of CHF

	Roche Pharmaceuticals 2023	Roche Pharmaceuticals 2022	Chugai 2023	Chugai 2022	Pharmaceuticals Division 2023	Pharmaceuticals Division 2022
Revenue from external customers						
Sales	40,867	40,602	3,745	4,949	44,612	45,551
Other revenue	1,577	1,710	90	755	1,667	2,465
Total	**42,444**	**42,312**	**3,835**	**5,704**	**46,279**	**48,016**
Revenue from other operating segments						
Sales	1,943	3,384	2,490	2,602	4,433	5,986
Other revenue	43	47	878	964	921	1,011
Elimination of income within division					(5,354)	(6,997)
Total	**1,986**	**3,431**	**3,368**	**3,566**	**–**	**–**
Segment results						
Operating profit	13,868	13,275	2,915	3,988	16,783	17,263
Elimination of results within division					349	(497)
Operating profit	**13,868**	**13,275**	**2,915**	**3,988**	**17,132**	**16,766**
Capital expenditure						
Business combinations	0	0	0	0	0	0
Asset acquisitions	6,219	240	0	0	6,219	240
Additions to property, plant and equipment	1,532	1,245	438	449	1,970	1,694
Additions to right-of-use assets	630	168	51	50	681	218
Additions to intangible assets	962	885	1	33	963	918
Total	**9,343**	**2,538**	**490**	**532**	**9,833**	**3,070**
Research and development						
Research and development costs	11,258	12,331	1,114	1,096	12,372	13,427
Elimination of costs within division					(20)	(43)
Total	**11,258**	**12,331**	**1,114**	**1,096**	**12,352**	**13,384**
Other segment information						
Depreciation of property, plant and equipment	1,108	1,209	155	172	1,263	1,381
Depreciation of right-of-use assets	166	177	31	34	197	211
Amortisation of intangible assets	544	749	10	15	554	764
Impairment (reversal) of property, plant and equipment	269	108	8	0	277	108
Impairment (reversal) of right-of-use assets	319	5	0	0	319	5
Impairment of goodwill	591	0	0	0	591	0
Impairment of intangible assets	569	2,837	20	0	589	2,837
Equity compensation plan expenses	632	557	2	3	634	560

Effective 1 January 2023, the Group has made certain presentational and cost allocation changes to the income statement. The comparative information for 2022 has been restated accordingly. Details and a reconciliation to the previously published income statement are disclosed in Note 34.

Net assets in millions of CHF

At 31 December	Assets 2023	Assets 2022	Assets 2021	Liabilities 2023	Liabilities 2022	Liabilities 2021	Net assets 2023	Net assets 2022	Net assets 2021
Net operating assets									
Pharmaceuticals	49,640	47,292	48,677	(13,134)	(14,736)	(15,262)	36,506	32,556	33,415
Diagnostics	20,484	21,593	21,459	(4,546)	(5,075)	(5,399)	15,938	16,518	16,060
Corporate	555	445	420	(884)	(600)	(618)	(329)	(155)	(198)
Total	**70,679**	**69,330**	**70,556**	**(18,564)**	**(20,411)**	**(21,279)**	**52,115**	**48,919**	**49,277**
Current income tax net assets (liabilities)							(1,913)	(2,874)	(2,682)
Deferred tax net assets (liabilities)							6,289	5,782	4,955
Defined benefit plan net assets (liabilities)							(3,360)	(3,604)	(4,605)
Lease liabilities							(1,573)	(1,193)	(1,354)
Marketable securities							5,134	4,776	6,181
Cash and cash equivalents							5,376	4,991	6,850
Debt							(29,209)	(25,351)	(31,198)
Other net assets (liabilities)							404	569	921
Total net assets							**33,263**	**32,015**	**28,345**

Net operating assets – Pharmaceuticals subdivisional information in millions of CHF

At 31 December	Assets 2023	Assets 2022	Assets 2021	Liabilities 2023	Liabilities 2022	Liabilities 2021	Net assets 2023	Net assets 2022	Net assets 2021
Roche Pharmaceuticals	46,077	43,036	44,860	(13,269)	(15,217)	(15,808)	32,808	27,819	29,052
Chugai	6,589	8,890	7,892	(1,157)	(1,910)	(1,700)	5,432	6,980	6,192
Elimination within division	(3,026)	(4,634)	(4,075)	1,292	2,391	2,246	(1,734)	(2,243)	(1,829)
Pharmaceuticals Division	**49,640**	**47,292**	**48,677**	**(13,134)**	**(14,736)**	**(15,262)**	**36,506**	**32,556**	**33,415**

Information by geographical area in millions of CHF

	Revenue from external customers		Non-current assets		
	Sales	Other revenue	Property, plant and equipment	Right-of-use assets	Goodwill and intangible assets
2023					
Switzerland	679	439	6,395	39	2,686
Germany	2,867	26	4,012	51	1,195
Rest of Europe	9,703	0	884	179	610
Europe	**13,249**	**465**	**11,291**	**269**	**4,491**
United States	27,183	1,169	6,135	663	19,611
Rest of North America	837	1	7	16	18
North America	**28,020**	**1,170**	**6,142**	**679**	**19,629**
Latin America	2,971	0	381	37	0
Japan	4,374	90	2,528	77	92
Rest of Asia	8,890	0	1,282	122	6
Asia	**13,264**	**90**	**3,810**	**199**	**98**
Africa, Australia and Oceania	1,212	0	100	31	0
Total	**58,716**	**1,725**	**21,724**	**1,215**	**24,218**
2022					
Switzerland	683	432	6,394	47	2,535
Germany	3,295	23	4,032	28	1,262
Rest of Europe	10,326	0	913	194	741
Europe	**14,304**	**455**	**11,339**	**269**	**4,538**
United States	27,939	1,322	7,194	570	15,794
Rest of North America	1,101	1	15	16	20
North America	**29,040**	**1,323**	**7,209**	**586**	**15,814**
Latin America	2,870	0	322	42	4
Japan	5,695	755	2,697	91	138
Rest of Asia	9,852	0	1,410	105	11
Asia	**15,547**	**755**	**4,107**	**196**	**149**
Africa, Australia and Oceania	1,520	0	98	40	0
Total	**63,281**	**2,533**	**23,075**	**1,133**	**20,505**

Effective 1 January 2023, the Group has made certain presentational and cost allocation changes to the income statement. The comparative information for 2022 on other revenue has been restated accordingly. Details and a reconciliation to the previously published income statement are disclosed in Note 34.

Sales are allocated to geographical areas by destination according to the location of the customer. Other revenue is allocated according to the location of the Group company that receives the revenue.

Major customers

In total three US national wholesale distributors represent approximately a third of the Group's sales in 2023 and in 2022. The three US national wholesale distributors are McKesson Corp. with CHF 8 billion (2022: CHF 8 billion), Cencora, Inc. (formerly AmerisourceBergen Corp.) with CHF 7 billion (2022: CHF 7 billion) and Cardinal Health, Inc. with CHF 4 billion (2022: CHF 4 billion). Approximately 99% (2022: 97%) of these revenues were in the Roche Pharmaceuticals operating segment, with the residual in the Diagnostics operating segment.

3. Revenue

Disaggregated revenue information

Disaggregation of revenue in millions of CHF

	2023 Revenue from contracts with customers	2023 Revenue from other sources	2023 Total	2022 Revenue from contracts with customers	2022 Revenue from other sources	2022 Total
Pharmaceuticals Division						
Sales by therapeutic area						
Oncology	19,087	–	19,087	19,995	–	19,995
Neuroscience	8,445	–	8,445	7,817	–	7,817
Immunology	6,242	–	6,242	7,181	–	7,181
Haemophilia A	4,147	–	4,147	3,823	–	3,823
Ophthalmology[a]	2,865	–	2,865	1,651	–	1,651
Infectious diseases	1,056	–	1,056	2,161	–	2,161
Other therapeutic areas[a]	2,770	–	2,770	2,923	–	2,923
Sales	**44,612**	**–**	**44,612**	**45,551**	**–**	**45,551**
Royalty income	551	284	835	663	261	924
Profit-share income	0	695	695	0	689	689
Other income from collaboration and out-licensing agreements	124	0	124	842	0	842
Other	13	0	13	10	0	10
Other revenue	**688**	**979**	**1,667**	**1,515**	**950**	**2,465**
Diagnostics Division						
Sales by customer area						
Core Lab	7,210	540	7,750	7,170	605	7,775
Molecular Lab	2,121	99	2,220	3,339	111	3,450
Pathology Lab	1,296	92	1,388	1,229	89	1,318
Point of Care	1,349	30	1,379	3,557	32	3,589
Diabetes Care	1,365	2	1,367	1,595	3	1,598
Sales	**13,341**	**763**	**14,104**	**16,890**	**840**	**17,730**
Royalty income	43	0	43	42	19	61
Profit-share income	0	0	0	0	0	0
Other income from collaboration and out-licensing agreements	2	0	2	0	0	0
Other	7	6	13	1	6	7
Other revenue	**52**	**6**	**58**	**43**	**25**	**68**
Total	**58,693**	**1,748**	**60,441**	**63,999**	**1,815**	**65,814**

a) In 2023 sales of the 'Ophthalmology' therapeutic area included sales of Luxturna. These were previously shown as part of 'Other therapeutic areas'. The comparative information for 2022 has been restated accordingly. Sales of Luxturna for 2022 were CHF 46 million.

Effective 1 January 2023, the Group has made certain presentational and cost allocation changes to the income statement. The comparative information for 2022 has been restated accordingly. Details and a reconciliation to the previously published income statement are disclosed in Note 34.

Revenue from other sources primarily relates to lease revenue and collaboration revenue for which the counterparty is not considered a customer, such as income from profit-sharing agreements with collaboration partners.

Gross-to-net sales reconciliation for the Pharmaceuticals Division

The gross-to-net sales reconciliation for the Pharmaceuticals Division is shown in the table below. The companies in the Diagnostics Division have similar reconciling items, but at much lower amounts.

Pharmaceuticals Division sales gross-to-net reconciliation in millions of CHF

	2023	2022
Gross sales	57,298	56,799
Government and regulatory mandatory price reductions	(6,762)	(5,943)
Contractual price reductions	(4,655)	(4,108)
Cash discounts	(311)	(279)
Customer returns reserves	(330)	(366)
Others	(628)	(552)
Net sales	**44,612**	**45,551**

Government and regulatory mandatory price reductions. These consist of mandatory price reductions. The major elements are the 340B Drug Discount Program, Medicaid and other plans in the US, which totalled USD 5.7 billion, equivalent to CHF 5.2 billion (2022: USD 4.9 billion, equivalent to CHF 4.7 billion).

Contractual price reductions. These include rebates and chargebacks that are the result of contractual agreements that are primarily volume based and performance based.

Cash discounts. These include credits offered to wholesalers for remitting payment on their purchases within contractually defined incentive periods.

Customer returns reserves. These are allowances established for expected product returns.

Sales reductions that are expected to be withheld by the customer upon settlement, such as contractual price reductions and cash discounts, are recorded in the balance sheet as a deduction from trade receivables (see Note 12). Sales reductions that are separately payable to customers, governmental health authorities or healthcare regulatory authorities are recorded in the balance sheet as accrued liabilities (see Note 19). Provisions for sales returns are recorded in the balance sheet as other provisions (see Note 20).

Contract balances

Receivables in millions of CHF

	2023	2022	2021
Accounts receivable [12]	11,021	11,606	10,806
Other current receivables – contracts with customers [16]	633	686	646
Other non-current receivables – contracts with customers [15]	19	26	36
Total receivables	**11,673**	**12,318**	**11,488**

Other current receivables mainly include royalty and licensing receivables. At 31 December 2023 total receivables included lease receivables of 2% (2022: 2%, 2021: 2%) which are not considered receivables from contracts with customers.

Contract assets in millions of CHF

	2023	2022	2021
Accrued income and contract costs	168	208	763
Total contract assets	**168**	**208**	**763**

Contract liabilities in millions of CHF

	2023	2022	2021
Deferred income – non-current	216	238	233
Deferred income – current	604	601	560
Total contract liabilities	**820**	**839**	**793**

Movement in contract liabilities in millions of CHF

	2023	2022
At 1 January	839	793
Revenue recognised that was included in the contract liability balance at the beginning of the year	(772)	(585)
Increases due to cash received or receivable, excluding amounts recognised as revenue during the year	825	669
Currency translation effects	(72)	(38)
At 31 December	**820**	**839**

Revenue recognised in relation to performance obligations satisfied in previous years

In 2023 there was a decrease in revenue recognised of CHF 46 million (2022: increase in revenue of CHF 102 million) relating to performance obligations that had been satisfied in previous periods, mainly due to adjustments of sales deduction provisions and accruals for expected sales returns, chargebacks and other allowances in respect of previous years.

Remaining performance obligations in (partially) unsatisfied long-term contracts

Remaining performance obligations in (partially) unsatisfied long-term contracts are either included in deferred income or are related to amounts the Group expects to receive for goods and services that have not yet been transferred to customers under existing, non-cancellable or otherwise enforceable contracts. These are mainly associated with contracts in the Diagnostics Division that have minimum purchase commitments related to reagents and consumables for previously sold instruments as well as monitoring and maintenance services. For contracts that have an original duration of one year or less, the Group has elected the practical expedient to not disclose the transaction price for remaining performance obligations at the end of each reporting period and at which point in time the Group expects to recognise these sales.

Transaction price allocated to contracts with (partially) unsatisfied performance obligations in millions of CHF

	2023	2022
No contract liability held	4,097	3,248
Contract liability held	820	839
Total	**4,917**	**4,087**
Thereof expected to be recognised as revenue		
– Within one year	2,104	1,895
– Between one and five years	2,705	2,084
– More than five years	108	108
Total	**4,917**	**4,087**

4. Net financial expense

Financing costs in millions of CHF

	2023	2022
Interest expense	(797)	(588)
Amortisation of debt discount [21]	(8)	(4)
Fair value loss on treasury locks designated as cash flow hedges – transferred from OCI	(2)	(2)
Net gains (losses) on debt derivatives	3	0
Net gains (losses) on redemption and repurchase of bonds and notes [21]	0	0
Discount unwind, including effects from discount rate changes [20]	(19)	27
Net interest cost of defined benefit plans [26]	(150)	(82)
Interest expense on lease liabilities [28]	(23)	(16)
Total financing costs	**(996)**	**(665)**

Other financial income (expense) in millions of CHF

	2023	2022
Net gains (losses) on equity investments/securities at fair value through profit or loss	4	(79)
Net income (expense) from equity investments/securities	**4**	**(79)**
Interest income (expense) from debt securities at fair value through OCI and at amortised cost	195	40
Net gains (losses) on sale of debt securities at fair value through OCI	0	0
Net gains (losses) on debt investments/securities at fair value through profit or loss	2	(6)
Write-downs and impairments of debt securities	(1)	0
Net interest income (expense) and income from debt investments/securities	**196**	**34**
Net foreign exchange gains (losses)	(353)	230
Net gains (losses) on foreign currency derivatives	110	(508)
Foreign exchange gains (losses)	**(243)**	**(278)**
Gains (losses) on net monetary position in hyperinflationary economies	(233)	(70)
Net other financial income (expense)	(12)	(50)
Associates	(32)	(41)
Total other financial income (expense)	**(320)**	**(484)**

Net financial expense in millions of CHF

	2023	2022
Financing costs	(996)	(665)
Other financial income (expense)	(320)	(484)
Net financial expense	**(1,316)**	**(1,149)**
Financial result from treasury management	(1,134)	(1,026)
Financial result from pension management	(150)	(82)
Associates	(32)	(41)
Net financial expense	**(1,316)**	**(1,149)**

Hyperinflationary economies

The Group has considered Argentina (since 1 July 2018) and Türkiye (since 1 April 2022) to be hyperinflationary economies in the context of IAS 29 'Financial Reporting in Hyperinflationary Economies'. The cumulative inflation index exceeds 100% for Argentina over the last three years as measured by the National Wholesale Price Index (Sistema de Índices de Precios Mayoristas) and for Türkiye over the last two years as measured by the consumer price index published by the Turkish Statistical Institute.

Accordingly the Group has reviewed the reporting from its affiliates in Argentina and Türkiye, and where necessary restated them in line with IAS 29. The potential adjustments resulting from the application of IAS 29 do not have a significant impact on the Group's operating results and balance sheet. An adjustment is recorded for the gains (losses) on the net monetary positions, which is a loss of CHF 233 million resulting from the loss in purchasing power of the positive net monetary positions during 2023 of the Group's affiliates in Argentina and Türkiye (2022: loss of CHF 70 million).

5. Income taxes

Income tax expenses in millions of CHF

	2023	2022
Current income taxes	(2,831)	(4,454)
Deferred taxes	1,110	1,658
Total income tax (expense)	**(1,721)**	**(2,796)**

Since the Group operates internationally, it is subject to income taxes in many different tax jurisdictions. The Group calculates its average expected tax rate as a weighted average of the tax rates in the tax jurisdictions in which the Group operates. This rate changes from year to year due to changes in the mix of the Group's taxable income and changes in local tax rates.

The Group's average expected tax rate decreased to 17.8% in 2023 (2022: 18.7%). This was driven by the lower percentage of profit contribution coming from tax jurisdictions with tax rates higher than the average Group tax rate. During 2023 there were no significant changes to local tax rates in the tax jurisdictions in which the Group operates.

The Group's effective tax rate decreased to 12.2% in 2023 (2022: 17.1%). This was mainly due to the higher effect from the resolution of several tax disputes in 2023 compared to 2022 and the mix in the profit contribution mentioned above.

The Group's effective tax rate can be reconciled to the Group's average expected tax rate as follows:

Reconciliation of the Group's effective tax rate

	2023	2022
Average expected tax rate	17.8%	18.7%
Tax effect of		
– Non-taxable income/non-deductible expenses	+2.2%	+1.8%
– Equity compensation plans	+0.5%	+0.4%
– Research and development tax credits and other deductions	–3.9%	–3.0%
– US state tax impacts	+0.4%	+0.5%
– Tax on unremitted earnings	+0.2%	+0.1%
– Resolution of several tax disputes	–5.5%	–1.9%
– Prior-year and other differences	+0.5%	+0.5%
Group's effective tax rate	**12.2%**	**17.1%**

The income tax benefit recorded in respect of equity compensation plans, which varies according to the price of the underlying equity, was CHF 77 million (2022: CHF 58 million). Had the income tax benefits been recorded solely on the basis of the IFRS 2 expense multiplied by the applicable tax rate, then a benefit of approximately CHF 145 million (2022: CHF 126 million) would have been recorded.

Tax effects of other comprehensive income in millions of CHF

	2023 Pre-tax amount	2023 Tax	2023 After-tax amount	2022 Pre-tax amount	2022 Tax	2022 After-tax amount
Remeasurements of defined benefit plans	(164)	41	(123)	849	(303)	546
Equity investments at fair value through OCI	(72)	8	(64)	28	2	30
Debt securities at fair value through OCI	13	0	13	(35)	2	(33)
Cash flow hedges	(18)	6	(12)	(90)	28	(62)
Currency translation of foreign operations	(2,644)	–	(2,644)	(1,703)	–	(1,703)
Other comprehensive income	**(2,885)**	**55**	**(2,830)**	**(951)**	**(271)**	**(1,222)**

Income tax assets (liabilities) in millions of CHF

	2023	2022	2021
Current income taxes			
– Assets	344	313	320
– Liabilities	(2,257)	(3,187)	(3,002)
Net current income tax assets (liabilities)	**(1,913)**	**(2,874)**	**(2,682)**
Deferred taxes			
– Assets	6,882	6,427	5,583
– Liabilities	(593)	(645)	(628)
Net deferred tax assets (liabilities)	**6,289**	**5,782**	**4,955**

Current income tax liabilities include accruals for uncertain tax positions.

Current income taxes: movements in recognised net assets (liabilities) in millions of CHF

	2023	2022
Net current income tax asset (liability) at 1 January	(2,874)	(2,682)
Income taxes paid	3,620	4,102
(Charged) credited to the income statement	(2,831)	(4,454)
(Charged) credited to equity from equity compensation plans and other transactions with shareholders	3	59
Currency translation effects and other movements	169	101
Net current income tax asset (liability) at 31 December	**(1,913)**	**(2,874)**

Deferred taxes: movements in recognised net assets (liabilities) in millions of CHF

	Property, plant and equipment and right-of-use assets	Intangible assets	Defined benefit plans	Other temporary differences	Total
Year ended 31 December 2022					
At 1 January 2022	(942)	(448)	940	5,405	4,955
Asset acquisitions [6]	0	0	0	6	6
(Charged) credited to the income statement	(16)	1,624	128	(78)	1,658
(Charged) credited to other comprehensive income [22]	–	–	(303)	32	(271)
(Charged) credited to equity from equity compensation plans and other transactions with shareholders	–	–	–	(327)	(327)
Currency translation effects and other movements	33	(62)	(45)	(165)	(239)
At 31 December 2022	**(925)**	**1,114**	**720**	**4,873**	**5,782**
Year ended 31 December 2023					
At 1 January 2023	(925)	1,114	720	4,873	5,782
Asset acquisitions [6]	0	7	0	19	26
(Charged) credited to the income statement	2	1,181	(24)	(49)	1,110
(Charged) credited to other comprehensive income [22]	–	–	41	14	55
(Charged) credited to equity from equity compensation plans and other transactions with shareholders	–	–	–	(46)	(46)
Currency translation effects and other movements	78	(183)	(55)	(478)	(638)
At 31 December 2023	**(845)**	**2,119**	**682**	**4,333**	**6,289**

The net deferred tax assets for other temporary differences mainly relate to accrued and other liabilities, including lease liabilities, provisions and unrealised profit in inventory.

Deferred tax assets are recognised for tax losses carried forward only to the extent that realisation of the related tax benefit is probable. The Group has unrecognised tax losses, including valuation allowances, as follows:

Unrecognised tax losses: expiry

	Amount (CHF million)	2023 Applicable tax rate	Amount (CHF million)	2022 Applicable tax rate
Within one year	558	12%	279	12%
Between one and five years	4,499	12%	3,433	12%
More than five years	6,650	6%	7,134	6%
Total unrecognised tax losses	**11,707**	**9%**	**10,846**	**8%**

The 'More than five years' category includes losses that cannot be used for US state income tax purposes in those states which only permit tax reporting on a separate entity basis.

Deferred tax liabilities have not been established for the withholding tax and other taxes that would be payable on the remittance of earnings of foreign subsidiaries, where such amounts are currently regarded as permanently reinvested for the purpose of these financial statements. The total unremitted earnings of the Group, regarded as permanently reinvested for the purpose of these financial statements, were CHF 26.4 billion at 31 December 2023 (2022: CHF 28.3 billion).

Pillar Two income taxes

The Organisation for Economic Co-operation and Development (OECD) has published Global Anti-Base Erosion (GloBE) Model Rules, which include a minimum tax of 15% by jurisdiction (Pillar Two). Various countries intend to enact or have enacted tax legislation to either fully or partially comply with Pillar Two.

The Group is within the scope of the OECD's Pillar Two. The Group is in the process of assessing its exposure to Pillar Two, which did not impact the 2023 results but will impact the results from 1 January 2024 onwards. On 22 December 2023 the Swiss government decided to partially implement Pillar Two by introducing a Qualified Domestic Minimum Top-up Tax (QDMTT) to reach the required taxation level of 15% on Pillar Two qualifying profits of subsidiaries in Switzerland effective from 1 January 2024. The Swiss government did not introduce the Income Inclusion Rule (IIR), which would require Switzerland to levy taxes on Pillar Two qualifying profits of subsidiaries in other countries not reaching the 15%. Based on the assessment to date and the shape of the business as at 1 January 2024, this global minimum tax regime is expected to increase the Group's tax rate in 2024.

6. Mergers and acquisitions

This note includes both transactions accounted for as business combinations and asset acquisitions. Asset acquisitions are acquisitions of legal entities that do not qualify as business combinations under IFRS 3 and include those acquisitions where the value in these acquired companies largely consists of the rights to a single asset, such as a product or technology, or to a group of similar assets. Cash consideration paid for asset acquisitions at the transaction date and subsequent additional contingent payments made upon the achievement of performance-related development milestones are included as a separate line in the table 'Cash flows from asset acquisitions' as disclosed below. Subsequent consideration for performance-related development milestones for transactions treated as asset acquisitions is recognised as intangible assets when the specific milestones have been achieved and other recognition criteria are met.

Future business combinations

Carmot Therapeutics, Inc. On 26 January 2024 the Group acquired a 100% controlling interest in Carmot Therapeutics, Inc. ('Carmot'), a privately owned US company based in Berkeley, California. With the acquisition, the Group obtained access to Carmot's current research and development portfolio, which includes three clinical-stage product candidates to treat obesity and diabetes, as well as a number of preclinical programmes. Carmot's lead product candidate, CT-388, is a phase II-ready dual GLP-1/GIP receptor agonist for the treatment of overweight and obese patients with comorbidities. Carmot will be reported in the Pharmaceuticals Division. The purchase consideration was USD 2.9 billion in cash and up to USD 0.4 billion from a contingent consideration arrangement. The contingent payments are based on the achievement of predetermined performance-related milestones. Given the recent acquisition date, the initial accounting for this transaction has not been completed at the time these Annual Financial Statements were approved for issue.

LumiraDx. On 29 December 2023 the Group announced the entry into a definitive agreement to acquire a 100% controlling interest in selected subsidiaries of LumiraDx Limited ('LumiraDx'), a company incorporated under the laws of the Cayman Islands, as part of a pre-packaged UK administration sale. With the acquisition, the Group will obtain access to LumiraDx's point-of-care technology which combines multiple diagnostic modalities on a single platform. The transaction is subject to certain conditions including antitrust and regulatory approvals. The closing of the transaction is currently expected to take place by mid-2024. LumiraDx will be reported in the Diagnostics Division. The cash consideration to be paid at the acquisition date will be USD 295 million (subject to customary closing adjustments) and an additional payment of up to USD 55 million for the reimbursement of amounts to fund the point-of-care technology platform business until the closing of the acquisition.

Business combinations – 2023

The Group did not complete any business combinations in 2023.

Business combinations – 2022

The Group did not complete any business combinations in 2022.

Cash flows from business combinations

Business combinations: net cash outflows in millions of CHF

	Pharmaceuticals	Diagnostics	2023 Total	Pharmaceuticals	Diagnostics	2022 Total
Cash consideration paid	0	0	0	0	0	0
Deferred consideration paid	0	0	0	0	0	0
Contingent consideration paid [20]	0	0	0	0	0	0
Cash in acquired company	0	0	0	0	0	0
Total net cash outflows	**0**	**0**	**0**	**0**	**0**	**0**

Asset acquisitions – 2023

Telavant Holdings, Inc. On 14 December 2023 the Group acquired a 100% controlling interest in Telavant Holdings, Inc. ('Telavant'), a US company owned by Roivant Sciences Ltd. ('Roivant') and Pfizer Inc. ('Pfizer') and based in New York. With the acquisition, the Group obtained full rights to further develop and manufacture RVT-3101 and commercialise it in the US and in Japan pending clinical and regulatory success. Outside of the US and Japan, Pfizer holds commercialisation rights. RVT-3101 is a phase III-ready novel TL1A-directed antibody for the treatment of inflammatory bowel disease, including ulcerative colitis and Crohn's disease, and potentially multiple other diseases. In addition, with the acquisition the Group obtained an option to enter into a global collaboration with Pfizer on a next-generation p40/TL1A-directed bispecific antibody which is currently in phase I. Telavant is reported in the Pharmaceuticals Division. The cash consideration paid at the acquisition date was USD 7.1 billion. An additional contingent payment of USD 150 million may be made based on the achievement of a predetermined performance-related near-term milestone.

Asset acquisitions – 2023: net assets acquired in millions of CHF

	Telavant
Intangible assets	
– Product intangibles: not available for use [10]	6,193
– Product intangibles: in use [10]	26
Deferred tax assets [5]	26
Cash and cash equivalents	1
Other net assets (liabilities)	(25)
Net identifiable assets	**6,221**
Total consideration	**6,221**
Cash	6,221
Total consideration	**6,221**

Asset acquisitions – 2022

Good Therapeutics, Inc. On 26 September 2022 the Group acquired a 100% controlling interest in Good Therapeutics, Inc. ('Good Therapeutics'), a privately owned US company based in Seattle, Washington. Good Therapeutics is reported in the Pharmaceuticals Division. The cash consideration paid at the acquisition date was USD 197 million. Additional contingent payments may be made based upon the achievement of performance-related milestones.

Asset acquisitions – 2022: net assets acquired in millions of CHF

	Good Therapeutics
Intangible assets	
– Product intangibles: not available for use	240
Deferred tax assets [5]	6
Cash and cash equivalents	0
Other net assets (liabilities)	0
Net identifiable assets	**246**
Fair value of previously held equity interest	(52)
Total consideration	**194**
Cash	194
Total consideration	**194**

Cash flows from asset acquisitions

Asset acquisitions: net cash outflows in millions of CHF

	Pharmaceuticals	Diagnostics	2023 Total	Pharmaceuticals	Diagnostics	2022 Total
Cash consideration paid	(6,221)	0	(6,221)	(194)	0	(194)
Cash in acquired company	1	0	1	0	0	0
Contingent payments related to previous acquisitions	0	0	0	0	(51)	(51)
Total net cash outflows	**(6,220)**	**0**	**(6,220)**	**(194)**	**(51)**	**(245)**

For asset acquisitions previously closed, in 2023 the Group did not record any additions to product intangible assets related to contingent payments for the achievement of performance-related milestones (2022: CHF 51 million).

Future divestments

In May 2023, the Group announced plans to exit its legacy Genentech manufacturing facility in Vacaville, California, as part of a broader strategy to evolve its manufacturing capabilities in line with future pipeline requirements. As of 31 December 2023 the assets and certain liabilities directly associated with the Vacaville manufacturing plant were classified as held for sale, as the Group is committed to a plan to sell, which is expected to be completed in 2024. This transaction is reported in the Pharmaceuticals Division.

Assets held for sale and liabilities directly associated with assets held for sale in millions of CHF

	2023	2022
Property, plant and equipment [8]	684	0
Right-of-use assets [28]	8	0
Assets held for sale	**692**	**0**
Lease liabilities [28]	(8)	0
Liabilities directly associated with assets held for sale	**(8)**	**0**
Net assets held for sale	**684**	**0**

7. Global restructuring plans

During 2023 the Group launched different productivity initiatives to reinvest in strategic areas and continued the implementation of various global restructuring plans initiated in prior years.

Global restructuring plans: costs incurred in millions of CHF

	2023	2022
Global restructuring costs		
– Employee-related costs	577	127
– Site closure and other costs related to physical assets	925	323
– Divestment of products and businesses	0	0
– Other reorganisation expenses	536	519
Total global restructuring costs	**2,038**	**969**
Additional costs		
– Impairment of goodwill	0	0
– Impairment of intangible assets	0	0
– Legal and environmental cases	0	(2)
Total costs	**2,038**	**967**

The Pharmaceuticals Division incurred restructuring costs of CHF 1,112 million (2022: CHF 788 million), with the major item being an infrastructure strategy optimisation programme resulting in costs of CHF 554 million, primarily consisting of impairment of right-of-use assets and property, plant and equipment at US sites. In addition, the manufacturing network strategy review incurred site closure costs of CHF 269 million mainly related to sites in the US (2022: CHF 178 million related to sites in the US, Switzerland and Germany). In 2022 the portfolio prioritisation programme incurred costs of CHF 221 million mainly related to the closure of studies.

The Diagnostics Division incurred costs of CHF 437 million (2022: CHF 75 million) for manufacturing and supply chain optimisations, research and development productivity initiatives and business transformations to drive organisational and commercial effectiveness. These costs mainly included CHF 191 million for employee-related matters as well as CHF 71 million primarily relating to impairments of property, plant and equipment at manufacturing sites and CHF 62 million of other reorganisation expenses.

Corporate costs were CHF 489 million (2022: CHF 104 million) and included the business process transformation to simplify the systems landscape and reduce process complexity. The transformation is a multi-year cross-divisional programme to drive efficiency gains through system and process optimisation.

Global restructuring plans: summary of costs incurred in millions of CHF

	2023	2022
Employee-related costs		
– Termination costs	425	(38)
– Defined benefit plans	(2)	(15)
– Other employee-related costs	154	180
Total employee-related costs	**577**	**127**
Site closure costs		
– Impairment (reversal) of property, plant and equipment and right-of-use assets	635	92
– Accelerated depreciation of property, plant and equipment and right-of-use assets	51	105
– (Gains) losses on disposal of property, plant and equipment and right-of-use assets	(63)	2
– Other site closure costs	302	124
Total site closure and other costs related to physical assets	**925**	**323**
Divestment of products and businesses		
– (Gains) losses on divestment of subsidiaries	0	0
– Other (gains) losses on divestment of products and businesses	0	0
Total costs on divestment of products and businesses	**0**	**0**
Other reorganisation expenses	536	519
Total global restructuring costs	**2,038**	**969**
Additional costs		
– Impairment of goodwill	0	0
– Impairment of intangible assets	0	0
– Legal and environmental cases	0	(2)
Total costs	**2,038**	**967**

Global restructuring plans: classification of costs in millions of CHF

	2023 Depreciation, amortisation and impairment	2023 Other costs	2023 Total	2022 Depreciation, amortisation and impairment	2022 Other costs	2022 Total
Cost of sales						
– Pharmaceuticals	56	260	316	145	106	251
– Diagnostics	68	164	232	13	31	44
Research and development						
– Pharmaceuticals	56	99	155	22	241	263
– Diagnostics	0	75	75	0	(2)	(2)
Selling, general and administration						
– Pharmaceuticals	503	218	721	17	244	261
– Diagnostics	3	121	124	0	34	34
– Corporate	0	490	490	0	105	105
Other operating income (expense)						
– Pharmaceuticals	0	(80)	(80)	0	13	13
– Diagnostics	0	6	6	0	(1)	(1)
– Corporate	0	(1)	(1)	0	(1)	(1)
Total costs	**686**	**1,352**	**2,038**	**197**	**770**	**967**
Total by operating segment						
– Roche Pharmaceuticals	611	470	1,081	162	577	739
– Chugai	4	27	31	22	27	49
– Diagnostics	71	366	437	13	62	75
– Corporate	0	489	489	0	104	104
Total costs	**686**	**1,352**	**2,038**	**197**	**770**	**967**

Effective 1 January 2023, the Group has made certain presentational and cost allocation changes to the income statement (see Note 34). The comparative information for 2022 has been restated accordingly.

8. Property, plant and equipment

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

	Land	Buildings and land improvements	Machinery and equipment	Construction in progress	Total
At 1 January 2022					
Cost	1,316	18,175	21,998	4,756	46,245
Accumulated depreciation and impairment	0	(8,289)	(14,691)	(102)	(23,082)
Net book value	**1,316**	**9,886**	**7,307**	**4,654**	**23,163**
Year ended 31 December 2022					
At 1 January 2022	1,316	9,886	7,307	4,654	23,163
Additions	2	125	946	2,329	3,402
Disposals	(1)	(6)	(84)	(3)	(94)
Transfers	(9)	1,925	1,127	(3,043)	–
Reclassification to assets held for sale [6]	0	0	0	0	0
Depreciation charge	–	(869)	(1,696)	–	(2,565)
Impairment reversal (charge)	0	0	(35)	(88)	(123)
Other	0	(2)	(59)	(6)	(67)
Currency translation effects	(60)	(178)	(276)	(127)	(641)
At 31 December 2022	**1,248**	**10,881**	**7,230**	**3,716**	**23,075**
Cost	1,248	19,806	22,494	3,891	47,439
Accumulated depreciation and impairment	0	(8,925)	(15,264)	(175)	(24,364)
Net book value	**1,248**	**10,881**	**7,230**	**3,716**	**23,075**
Year ended 31 December 2023					
At 1 January 2023	1,248	10,881	7,230	3,716	23,075
Additions	34	6	956	2,774	3,770
Disposals	(32)	(13)	(75)	(4)	(124)
Transfers	1	737	612	(1,350)	–
Reclassification to assets held for sale [6]	(29)	(433)	(184)	(38)	(684)
Depreciation charge	–	(829)	(1,594)	–	(2,423)
Impairment reversal (charge)	(1)	(207)	(105)	(37)	(350)
Other	0	15	(62)	(15)	(62)
Currency translation effects	(112)	(629)	(505)	(232)	(1,478)
At 31 December 2023	**1,109**	**9,528**	**6,273**	**4,814**	**21,724**
Cost	1,109	17,933	19,913	4,882	43,837
Accumulated depreciation and impairment	0	(8,405)	(13,640)	(68)	(22,113)
Net book value	**1,109**	**9,528**	**6,273**	**4,814**	**21,724**

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

	2023	2022
Cost of sales	(116)	(119)
Research and development	(32)	(3)
Selling, general and administration	(202)	(1)
Other operating income (expense)	0	0
Total impairment reversal (charge)	**(350)**	**(123)**

Effective 1 January 2023, the Group has made certain presentational and cost allocation changes to the income statement (see Note 34). The comparative information for 2022 has been restated accordingly.

In 2023 and 2022 impairments for property, plant and equipment were mainly related to global restructuring plans (see Note 7). Included in the 2023 impairment charge was a full write-off of CHF 221 million for leasehold improvements and equipment recorded by Foundation Medicine in relation to its leased buildings in Boston and San Diego, US. These valuations were determined using a fair value less costs of disposal calculation and classified as a Level 3 fair value in the fair value hierarchy. A post-tax discount rate of 3.5% was applied to the projected post-tax cash flows for the remaining contractual period of Foundation Medicine's lease agreements of approximately 8 to 15 years.

In 2023 reimbursements of CHF 3 million were received from insurance companies in respect of impairments to property, plant and equipment (2022: none). In 2023 no borrowing costs were capitalised as property, plant and equipment (2022: none).

At 31 December 2023 buildings and land improvements as well as machinery and equipment with an original cost of CHF 5.6 billion (2022: CHF 5.7 billion) and a net book value of CHF 1.6 billion (2022: CHF 1.6 billion) were being leased to third parties (see Note 28).

Capital commitments

The Group has non-cancellable capital commitments for the purchase or construction of property, plant and equipment totalling CHF 1.8 billion (2022: CHF 2.6 billion).

9. Goodwill

Goodwill: movements in carrying value of assets in millions of CHF

	2023	2022
At 1 January		
Cost	14,942	14,900
Accumulated impairment	(4,122)	(4,091)
Net book value	**10,820**	**10,809**
Year ended 31 December		
At 1 January	10,820	10,809
Impairment charge recorded within other operating income (expense)	(591)	0
Currency translation effects	(839)	11
At 31 December	**9,390**	**10,820**
Cost	13,781	14,942
Accumulated impairment	(4,391)	(4,122)
Net book value	**9,390**	**10,820**
Allocated to the following cash-generating units		
Roche Pharmaceuticals strategic transactions	4,379	5,388
Roche Pharmaceuticals product transactions	322	345
Chugai	66	77
Total Pharmaceuticals Division	**4,767**	**5,810**
Diagnostics customer areas	3,443	3,753
Diabetes Care customer area	80	85
Divisional goodwill	1,100	1,172
Total Diagnostics Division	**4,623**	**5,010**

Cash-generating units used for allocating goodwill

Pharmaceuticals Division. The basis for the use of the cash-generating units for allocating goodwill in the Pharmaceuticals Division is as follows:

- Within the Roche Pharmaceuticals operating segment, goodwill arises from three broad types of transactions:
  - Strategic transactions that have a transformative effect across the whole division.
  - Technology transactions where the acquired technologies can have a range of areas of applications.
  - Product transactions where the acquired products typically have more limited synergistic benefits outside of the immediate product therapeutic area.
- The cash-generating unit for the goodwill arising from strategic transactions is the Roche Pharmaceuticals operating segment.
- The cash-generating unit for the goodwill arising from technology transactions is also the Roche Pharmaceuticals operating segment. However, if the acquired technologies permanently cease to operate, then this will be treated as a disposal of the business; in such cases the goodwill will be deemed to have been disposed of and will be fully impaired.
- The cash-generating unit for the goodwill arising from product transactions is the smallest identifiable group of assets related to the revenues and related costs that arise from the development and commercialisation of the product(s) in question. Where there are synergistic benefits to other products in the same therapeutic area, then the revenues, costs and corresponding assets of these other products are also taken into account. If the acquired products permanently cease to generate economic benefits, then this will be treated as a disposal of the business; in such cases the goodwill will be deemed to have been disposed of and will be fully impaired.
- Chugai is a separate operating segment in the Group's financial reporting and a separate cash-generating unit to which goodwill is allocated.

The Group allocated the goodwill in the Roche Pharmaceuticals operating segment as listed below.
- Strategic transactions consist of Genentech (1990/1999), Flatiron Health (2018) and Spark Therapeutics (2019).
- Technology transactions consist of Therapeutic Human Polyclonals (2007), Dutalys (2014) and Santaris (2014).
- Product transactions consist of GlycArt (2005) and Tanox (2007).

Diagnostics Division. The basis for the use of the cash-generating units for allocating goodwill in the Diagnostics Division is as follows:
- Within the Diagnostics Division, goodwill arises from three broad types of transactions:
  - Strategic transactions that have a transformative effect across the whole division.
  - Technology transactions where the acquired technologies can have a range of areas of applications.
  - Product transactions where the acquired products either have synergistic benefits across the wider business or where they have more limited synergistic benefits outside of the immediate product therapeutic area.
- The cash-generating unit for the goodwill arising from strategic transactions is the Diagnostics Division.
- The cash-generating unit for the goodwill arising from technology transactions is either the Diagnostics customer areas or the Diabetes Care customer area. However, if the acquired technologies permanently cease to operate, then this will be treated as a disposal of the business; in such cases the goodwill will be deemed to have been disposed of and will be fully impaired.
- The cash-generating unit for the goodwill arising from product transactions is the smallest identifiable group of assets related to the revenues and related costs that arise from the development and commercialisation of the product(s) in question. Where there are synergistic benefits to other products in the same business, then the revenues, costs and corresponding assets of these other products are also taken into account and the cash-generating unit is either the Diagnostics customer areas or the Diabetes Care customer area. If the acquired products permanently cease to generate economic benefits, then this will be treated as a disposal of the business; in such cases the goodwill will be deemed to have been disposed of and will be fully impaired.

The Group allocated the goodwill in the Roche Diagnostics operating segment as listed below.
- Strategic transactions consist of Corange/Boehringer Mannheim (1997).
- Technology transactions consist of Viewics (2017) in the Diagnostics customer areas and mySugr (2017) in the Diabetes Care customer area.
- Product transactions in the Diagnostics customer areas consist of Igen (2004), BioVeris (2007), Ventana (2008), PVT (2011), IQuum (2014), GenMark (2021) and TIB Molbiol (2021).
- Product transactions in the Diabetes Care customer area consist of Disetronic (2003) and Medingo (2010).

Impairment charge – 2023

In October 2023 the Group announced that, effective 1 January 2024, the Foundation Medicine business will be moved under the responsibility of the Diagnostics Division from the Pharmaceuticals Division, while retaining Foundation Medicine's independence in this new reporting set-up. Consequently the Foundation Medicine business was from the time of the announcement no longer considered a strategic transaction for the Pharmaceuticals Division, in the context of accounting for goodwill, and was therefore considered to be a product transaction for the regular impairment testing carried out at the end of 2023. The result of this testing was that a full impairment of CHF 591 million was recorded for the goodwill from the Foundation Medicine acquisition. There was no surplus from the estimated future revenues of the Foundation Medicine business to support the carrying value of the goodwill, neither were there any significant future synergistic benefits to other products within the Pharmaceuticals Division. Accordingly the separable recoverable value of this goodwill was estimated to be zero and it has been fully impaired.

Impairment charge – 2022

There were no impairments of goodwill during 2022.

Value in use

Value in use is calculated using a discounted expected cash flow approach, with a post-tax discount rate applied to the projected risk-adjusted post-tax cash flows and terminal value. The discount rate is the Group's weighted average cost of capital as the cash-generating units have integrated operations across large parts of the Group. It is derived from a capital asset pricing model using data from capital markets, including government twenty-year bonds. For assessing value in use, the cash flow projections are based on the most recent long-term forecasts approved by management. The long-term forecasts include management's latest estimates on sales volume and pricing, as well as production and other operating costs and assume no significant changes in the organisation. Other key assumptions used in the calculations are the period of cash flow projections included in the long-term forecasts, the terminal value growth rate and the discount rate.

Key assumptions used in value-in-use calculations

			2023			2022
	Period of cash flow projections	Terminal value growth rate	Discount rate (after tax)	Period of cash flow projections	Terminal value growth rate	Discount rate (after tax)
Pharmaceuticals Division	5 years	n/a	7.2%	5 years	n/a	7.5%
Diagnostics Division	5 years	1.5%	7.2%	5 years	1.5%	7.5%

For goodwill relating to Roche Pharmaceuticals product transactions, product-specific periods of cash flow projections are used. For cash-generating units with a terminal value growth, the respective rate does not exceed the long-term projected growth rate for the relevant market.

Fair value less costs of disposal

For goodwill arising from the Chugai acquisition, the fair value less costs of disposal is determined with reference to the publicly quoted price of Chugai shares.

Sensitivity analysis

Management has performed sensitivity analyses for Roche Pharmaceuticals and the Diagnostics Division, which increased the discount rate by 1% combined with decreasing the forecast cash flows by 5%, and for Chugai, which decreased the publicly quoted share prices by 5%. The results of the sensitivity analyses demonstrated that the above changes in the key assumptions would not cause the carrying values of goodwill to exceed the recoverable amounts at 31 December 2023.

10. Intangible assets

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

	Product intangibles: in use	Product intangibles: not available for use	Other intangibles	Total
At 1 January 2022				
Cost	27,202	8,029	2,001	37,232
Accumulated amortisation and impairment	(21,212)	(2,503)	(1,400)	(25,115)
Net book value	**5,990**	**5,526**	**601**	**12,117**
Year ended 31 December 2022				
At 1 January 2022	5,990	5,526	601	12,117
Asset acquisitions	0	291	0	291
Additions	221	596	127	944
Disposals	0	0	0	0
Transfers	94	(94)	0	–
Amortisation charge	(847)	–	(91)	(938)
Impairment charge	(1,484)	(1,353)	0	(2,837)
Currency translation effects	96	13	(1)	108
At 31 December 2022	**4,070**	**4,979**	**636**	**9,685**
Cost	27,473	8,375	2,118	37,966
Accumulated amortisation and impairment	(23,403)	(3,396)	(1,482)	(28,281)
Net book value	**4,070**	**4,979**	**636**	**9,685**
Allocated by operating segment				
Roche Pharmaceuticals	2,705	4,571	529	7,805
Chugai	10	39	12	61
Diagnostics	1,355	369	95	1,819
Total Group	**4,070**	**4,979**	**636**	**9,685**
Year ended 31 December 2023				
At 1 January 2023	4,070	4,979	636	9,685
Asset acquisitions [6]	26	6,193	0	6,219
Additions	385	530	101	1,016
Disposals	0	0	0	0
Transfers	31	(31)	0	–
Amortisation charge	(616)	–	(100)	(716)
Impairment charge	(208)	(400)	0	(608)
Other	0	0	(1)	(1)
Currency translation effects	(253)	(468)	(46)	(767)
At 31 December 2023	**3,435**	**10,803**	**590**	**14,828**
Cost	25,934	14,321	1,966	42,221
Accumulated amortisation and impairment	(22,499)	(3,518)	(1,376)	(27,393)
Net book value	**3,435**	**10,803**	**590**	**14,828**
Allocated by operating segment				
Roche Pharmaceuticals	2,309	10,446	477	13,232
Chugai	4	17	5	26
Diagnostics	1,122	340	108	1,570
Total Group	**3,435**	**10,803**	**590**	**14,828**

Significant intangible assets at 31 December 2023 in millions of CHF

	Operating segment	Net book value	Remaining amortisation period
Product intangibles in use			
GenMark acquisition	Diagnostics	562	11 years
Rozlytrek (Ignyta acquisition)	Roche Pharmaceuticals	546	8 years
Xofluza (Shionogi in-licensing transaction)	Roche Pharmaceuticals	365	12 years
Product intangibles not available for use			
RVT-3101 (Telavant acquisition)	Roche Pharmaceuticals	5,998	n/a
Elevidys (Sarepta in-licensing transaction)	Roche Pharmaceuticals	815	n/a
SPK-8011 haemophilia A gene therapy (Spark Therapeutics acquisition)	Roche Pharmaceuticals	484	n/a
Inflazome acquisition	Roche Pharmaceuticals	359	n/a
Stratos Genomics acquisition	Diagnostics	326	n/a
Alnylam in-licensing transaction	Roche Pharmaceuticals	264	n/a
Good Therapeutics acquisition	Roche Pharmaceuticals	206	n/a
BioNTech in-licensing transaction	Roche Pharmaceuticals	196	n/a
Other intangibles – Technology intangibles in use			
Adaptive in-licensing transaction	Roche Pharmaceuticals	190	15 years

Classification of intangible asset amortisation and impairment expenses in millions of CHF

	Amortisation 2023	Amortisation 2022	Impairment 2023	Impairment 2022
Cost of sales				
– Pharmaceuticals	(244)	(415)	(183)	(1,472)
– Diagnostics	(136)	(145)	0	0
Research and development				
– Pharmaceuticals	(301)	(336)	(406)	(1,365)
– Diagnostics	(7)	(8)	(19)	0
Selling, general and administration				
– Pharmaceuticals	(9)	(13)	0	0
– Diagnostics	(19)	(21)	0	0
Total	**(716)**	**(938)**	**(608)**	**(2,837)**

Effective 1 January 2023, the Group has made certain presentational and cost allocation changes to the income statement (see Note 34). The comparative information for 2022 has been restated accordingly.

Internally generated intangible assets

At 31 December 2023 internally generated intangible assets relating to commercial software amounted to CHF 70 million (2022: CHF 32 million) and are included in other intangibles. Other than that the Group 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.

Intangible assets not available for use

These mostly represent in-process research and development assets acquired either through in-licensing arrangements, business combinations, asset acquisitions or separate purchases. On 31 December 2023 approximately 28% (2022: 88%) of the projects in the Pharmaceuticals Division had known decision points within the next twelve months which, under certain circumstances, could lead to impairment. Excluding the product intangible RVT-3101 acquired as part of the Telavant acquisition, this percentage is 65%. 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 commercialised product.

Intangible asset impairment

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 capitalised rights could result in shortened useful lives or impairment.

Impairment charges – 2023

Pharmaceuticals Division. Impairment charges totalling CHF 589 million were recorded. The major items related to:
- A charge of CHF 183 million for the partial impairment of the product intangible asset for Rozlytrek, acquired as part of the Ignyta acquisition, due to reduced sales expectations. The asset concerned was written down to its estimated recoverable amount of CHF 546 million. The intangible asset in use continues to be amortised over its remaining estimated useful life of eight years.
- A charge of CHF 87 million following a delay in clinical trials and revised sales expectations of a compound purchased separately. The asset concerned, which was not yet being amortised, was fully written down.
- A charge of CHF 82 million following a clinical data assessment and the decision to stop part of the development of a compound with an alliance partner. The asset concerned, which was not yet being amortised, was fully written down.
- A charge of CHF 65 million following a clinical data assessment and the decision to stop part of the development of a compound with an alliance partner. The asset concerned, which was not yet being amortised, was written down to its estimated recoverable amount of CHF 137 million.
- A charge of CHF 61 million following the decision to stop a programme with an alliance partner. The asset concerned, which was not yet being amortised, was fully written down.
- A charge of CHF 57 million for the partial impairment of the product intangible asset for SPK-9001, a novel gene therapy for the treatment of haemophilia B that was acquired as part of the Spark Therapeutics acquisition. This impairment was a result of revised sales expectations. The asset concerned, which was not yet being amortised, was written down to its estimated recoverable amount of CHF 109 million.

Diagnostics Division. Impairment charges totalling CHF 19 million were recorded. The major items related to:
- A charge of CHF 19 million following the decision to deprioritise the development of the underlying asset with a collaboration partner. The asset concerned, which was being amortised, was fully written down.

Impairment charges – 2022

Pharmaceuticals Division. Impairment charges totalling CHF 2,837 million were recorded. The major items related to:

- A charge of CHF 663 million for the full impairment of the in-licensed Gavreto product intangible asset due to lower sales expectations. The asset concerned, which was being amortised, was fully written down.
- A charge of CHF 519 million for the partial impairment of the product intangible asset for SPK-8011, a novel gene therapy for the treatment of haemophilia A that was acquired as part of the Spark Therapeutics acquisition. This impairment was a result of revised sales expectations. The asset concerned, which was not yet being amortised, was written down to its estimated recoverable amount of CHF 530 million.
- A charge of CHF 362 million for the full impairment of the product intangible asset for PRM-151, a novel anti-fibrotic immunomodulator for the treatment of idiopathic pulmonary fibrosis that was acquired as part of the Promedior acquisition. The impairment was due to the decision to stop development following a data assessment. The asset concerned, which was not yet being amortised, was fully written down.
- A charge of CHF 336 million for the partial impairment of the product intangible asset relating to the technology acquired as part of the Flatiron acquisition. The impairment was a result of reduced sales expectations. The asset concerned was written down to its estimated recoverable amount of CHF 56 million. The intangible asset continues to be amortised over its remaining estimated useful life of ten years.
- A charge of CHF 292 million for the partial impairment of the product intangible asset for Rozlytrek, acquired as part of the Ignyta acquisition, due to lower sales expectations. The asset concerned was written down to its estimated recoverable amount of CHF 882 million. The intangible asset in use continues to be amortised over its remaining estimated useful life of nine years.
- A charge of CHF 117 million for the full impairment of the product intangible asset relating to Foundation Medicine's technology. The impairment was a result of increased competition and reduced sales expectations. The asset concerned, which was being amortised, was fully written down.
- A charge of CHF 107 million for the partial impairment of the product intangible asset for SPK-9001, a novel gene therapy for the treatment of haemophilia B that was acquired as part of the Spark Therapeutics acquisition. This impairment was a result of revised sales expectations. The asset concerned, which was not yet being amortised, was written down to its estimated recoverable amount of CHF 178 million.
- A charge of CHF 100 million following a clinical data assessment and the decision to stop the development of CD25, acquired as part of the Tusk Therapeutics acquisition. The asset concerned, which was not yet being amortised, was fully written down.
- A charge of CHF 95 million due to the decision to stop the development of a compound and the related collaboration with an alliance partner. The asset concerned, which was not yet being amortised, was fully written down.
- A charge of CHF 86 million following a clinical data assessment and the decision to stop the development of NLRP3 inhibitors, acquired as part of the Jecure Therapeutics acquisition. The asset concerned, which was not yet being amortised, was fully written down.
- A charge of CHF 60 million for the partial impairment of the product intangible asset for Luxturna, acquired as part of the Spark Therapeutics acquisition. The impairment was a result of reduced sales expectations. The asset concerned was written down to its estimated recoverable amount of CHF 76 million. The intangible asset continues to be amortised over its remaining estimated useful life of five years.
- A charge of CHF 54 million for the full impairment of the product intangible asset for SPK-3006, a novel gene therapy for the treatment of late-onset Pompe disease that was acquired as part of the Spark Therapeutics acquisition. This impairment was a result of a change in timelines of the underlying development programme leading to reduced sales expectations. The asset concerned, which was not yet being amortised, was fully written down.

Potential commitments from alliance collaborations and intangible asset purchase agreements within the next three years

The Group is party to in-licensing and alliance arrangements and intangible asset purchase agreements, including asset acquisitions. These arrangements and purchase agreements 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 and purchase agreements.

The Group's current estimate of future third-party commitments for such potential payments within the next three years 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. These figures do not include any potential commitments within the Group, such as may arise between the Roche and Chugai businesses.

Potential future third-party collaboration and purchase payments at 31 December 2023 in millions of CHF

	Pharmaceuticals	Diagnostics	Group
Within one year	940	34	974
Between one and two years	1,193	1	1,194
Between two and three years	584	60	644
Total	**2,717**	**95**	**2,812**

11. Inventories

Inventories in millions of CHF

	2023	2022	2021
Raw materials and supplies	1,698	1,949	1,547
Work in process	118	118	100
Intermediates	5,504	6,273	5,738
Finished goods	1,182	1,138	1,202
Allowances for slow-moving and obsolete inventory	(753)	(873)	(872)
Total inventories	**7,749**	**8,605**	**7,715**

Inventories expensed through cost of sales totalled CHF 12.3 billion (2022: CHF 14.4 billion). Inventory write-downs during the year resulted in an expense of CHF 643 million (2022: CHF 509 million).

12. Accounts receivable

Accounts receivable in millions of CHF

	2023	2022	2021
Trade receivables	12,076	12,613	11,965
Notes receivable	55	33	45
Other receivables	51	52	54
Allowances for doubtful accounts	(440)	(490)	(538)
Chargebacks and other allowances to be withheld upon settlement [3]	(721)	(602)	(720)
Total accounts receivable [3]	**11,021**	**11,606**	**10,806**

Allowances for doubtful accounts: movements in recognised allowance in millions of CHF

	2023	2022
At 1 January	(490)	(538)
Additional allowances created	(104)	(128)
Unused amounts reversed	125	156
Utilised during the year	10	11
Currency translation effects	19	9
At 31 December	**(440)**	**(490)**

Bad debt expenses recorded as selling, general and administration costs totalled CHF 6 million (2022: expense of CHF 3 million).

13. Marketable securities

Marketable securities in millions of CHF

	2023	2022	2021
Equity securities at fair value through profit or loss [31]	1	1	2
Debt securities at fair value through OCI [31]	512	583	494
Debt securities at fair value through profit or loss	0	0	71
Money market instruments at fair value through OCI [31]	2,359	3,811	2,816
Time accounts over three months at amortised costs [31]	2,262	381	2,798
Total marketable securities	**5,134**	**4,776**	**6,181**

Marketable securities are held for fund management purposes and are primarily denominated in US dollars, euros and in Swiss francs. Money market instruments are contracted to mature within one year of 31 December 2023.

Debt securities – contracted maturity in millions of CHF

	2023	2022	2021
Within one year	120	107	130
Between one and five years	387	453	358
More than five years	5	23	77
Total debt securities	**512**	**583**	**565**

14. Cash and cash equivalents

Cash and cash equivalents in millions of CHF

	2023	2022	2021
Cash – cash in hand and in current or call accounts	4,102	2,841	5,028
Cash equivalents – time accounts with a maturity of three months or less	1,274	2,150	1,822
Total cash and cash equivalents	**5,376**	**4,991**	**6,850**

15. Other non-current assets

Other non-current assets in millions of CHF

	2023	2022	2021
Equity investments at fair value through OCI [31]	249	356	328
Equity and debt investments at fair value through profit or loss [31]	298	315	410
Loans receivable	7	7	7
Restricted cash	1	1	1
Other receivables – contracts with customers [3]	19	26	36
Other receivables	87	92	90
Total financial non-current assets	**661**	**797**	**872**
Long-term employee benefits	188	193	234
Other assets	873	948	834
Total non-financial non-current assets	**1,061**	**1,141**	**1,068**
Associates	242	300	331
Total other non-current assets	**1,964**	**2,238**	**2,271**

Equity investments designated at fair value through OCI are mainly investments in private companies from the pharmaceutical sector which are held as part of the Group's strategic alliance efforts.

16. Other current assets

Other current assets in millions of CHF

	2023	2022	2021
Accrued interest income	20	6	12
Derivative financial instruments [31]	148	167	189
Cash collateral receivables	61	198	23
Other receivables – contracts with customers [3]	633	686	646
Other receivables	183	192	211
Total financial current assets	**1,045**	**1,249**	**1,081**
Prepaid expenses and accrued income	1,144	1,202	1,869
Other taxes recoverable	718	865	633
Other assets	223	209	172
Total non-financial current assets	**2,085**	**2,276**	**2,674**
Total other current assets	**3,130**	**3,525**	**3,755**

17. Accounts payable

Accounts payable in millions of CHF

	2023	2022	2021
Trade payables	3,524	3,861	3,844
Other taxes payable	539	421	519
Dividends payable	2	3	3
Other payables	260	271	271
Total accounts payable	**4,325**	**4,556**	**4,637**

18. Other non-current liabilities

Other non-current liabilities in millions of CHF

	2023	2022	2021
Deferred income	227	254	246
Lease liabilities [28]	1,282	891	1,025
Other long-term liabilities	32	44	36
Total other non-current liabilities	**1,541**	**1,189**	**1,307**

19. Other current liabilities

Other current liabilities in millions of CHF

	2023	2022	2021
Deferred income	614	601	560
Lease liabilities [28]	291	302	329
Accrued payroll and related items	2,995	3,117	3,399
Interest payable	187	140	102
Derivative financial instruments [31]	420	626	262
Cash collateral payables	11	18	40
Accrued chargebacks and other allowances separately payable [3]	3,602	3,577	3,486
Accrued royalties and commissions	968	1,380	1,294
Other accrued liabilities	3,062	3,527	3,657
Total other current liabilities	**12,150**	**13,288**	**13,129**

20. Provisions and contingent liabilities

Provisions: movements in recognised liabilities in millions of CHF

	Legal provisions	Environmental provisions	Restructuring provisions	Contingent consideration provisions	Other provisions	Total
Year ended 31 December 2022						
At 1 January 2022	372	447	1,427	141	1,581	3,968
Additional provisions created	33	12	149	2	868	1,064
Unused amounts reversed	(67)	(1)	(221)	(41)	(215)	(545)
Utilised	(23)	(51)	(488)	0	(490)	(1,052)
Discount unwind, including effects from discount rate changes [4]	0	(20)	(7)	(1)	1	(27)
Business combinations						
– Acquired companies	0	0	0	0	0	0
– Deferred consideration	–	–	–	–	0	0
– Contingent consideration	–	–	–	0	–	0
Asset acquisitions	0	0	0	–	0	0
Currency translation effects	1	(13)	(16)	2	(23)	(49)
At 31 December 2022	**316**	**374**	**844**	**103**	**1,722**	**3,359**
Current	307	88	419	38	1,396	2,248
Non-current	9	286	425	65	326	1,111
At 31 December 2022	**316**	**374**	**844**	**103**	**1,722**	**3,359**
Year ended 31 December 2023						
At 1 January 2023	316	374	844	103	1,722	3,359
Additional provisions created	45	61	450	0	877	1,433
Unused amounts reversed	(171)	(8)	(86)	(10)	(579)	(854)
Utilised	(48)	(53)	(337)	0	(614)	(1,052)
Discount unwind, including effects from discount rate changes [4]	0	10	3	6	0	19
Business combinations						
– Acquired companies	0	0	0	0	0	0
– Deferred consideration	–	–	–	–	0	0
– Contingent consideration	–	–	–	0	–	0
Asset acquisitions	0	0	0	–	0	0
Currency translation effects	(16)	(23)	(23)	(4)	(96)	(162)
At 31 December 2023	**126**	**361**	**851**	**95**	**1,310**	**2,743**
Current	120	77	468	35	984	1,684
Non-current	6	284	383	60	326	1,059
At 31 December 2023	**126**	**361**	**851**	**95**	**1,310**	**2,743**
Expected outflow of resources						
Within one year	120	77	468	35	984	1,684
Between one and two years	2	103	234	12	113	464
Between two and three years	1	75	92	26	47	241
More than three years	3	106	57	22	166	354
At 31 December 2023	**126**	**361**	**851**	**95**	**1,310**	**2,743**

In 2023 CHF 1,052 million of provisions were utilised (2022: CHF 1,052 million), which are included in the cash flows from operating activities.

Legal provisions

Legal provisions relate to a number of separate legal matters, including claims arising from trade, in various Group companies. By their nature the amounts and timings of any outflows are difficult to predict.

As part of the regular review of litigation matters, management has reassessed the provisions recorded for certain litigation matters. Based on the development of the various litigations, notably the Meso case, some of the provisions previously held were released which resulted in an income of CHF 171 million in 2023. In addition, a fine of CHF 59 million imposed by the French Competition Authority on the Avastin/Lucentis investigation in 2020 was reimbursed following a court decision. These were the major elements in the expenses for legal cases in 2023, which show a net income of CHF 182 million reported in other operating income (expense) (2022: net income of CHF 25 million). Details of the major legal cases outstanding are disclosed below.

Environmental provisions

Provisions for environmental matters relate to various separate environmental issues in a number of countries. By their nature the amounts and timings of any outflows are difficult to predict. At 31 December 2023 significant provisions were discounted by between 3% and 5% (2022: between 4% and 5%) where the time value of money was material. The significant provisions relate to the estimated remediation costs for the manufacturing site at Clarecastle, Ireland, which was shut down in the meantime, and to the US site in Nutley, New Jersey, which was divested in September 2016. In 2023 environmental provisions decreased by CHF 13 million, mainly due to utilisations and currency translation effects and partially offset by an increase in provisions. The net environmental expenses reported in other operating income (expense) in 2023 were CHF 60 million (2022: net expenses of CHF 3 million) and included an increase of provisions of CHF 61 million mainly for the Clarecastle site following a reassessment of the expected costs of the environmental remediation.

The Group's procedures on environmental protection are included in the Annual Report on pages 78 to 83. These include the actions taken by the Group with regard to climate change, notably the Group's commitment to reduce greenhouse gas emissions.

Restructuring provisions

These arise from planned programmes that materially change the scope of business undertaken by the Group or the manner in which business is conducted. Such provisions include only the costs necessarily entailed by the restructuring which are not associated with the recurring activities of the Group. The timings of these cash outflows are reasonably certain. Significant non-current provisions are discounted using an average discount rate of 1.4% (2022: 2.1%).

In the Pharmaceuticals Division the significant provisions relate to various business transformation initiatives, including the site development plans at the Basel/Kaiseraugst site and the resourcing flexibility plans, as well as to the redesign and the strategic realignment of its manufacturing network mainly in the US. In the Diagnostics Division the significant provisions are associated with manufacturing and supply chain optimisations, research and development productivity initiatives and business transformations measures. Additionally, provisions were also recorded for a cross-divisional transformation programme to simplify the systems landscape and reduce process complexity. Further details are given in Note 7.

Contingent consideration provisions

The Group is party to certain contingent consideration arrangements arising from business combinations. Significant non-current provisions are discounted using an average discount rate of 4.9% (2022: 5.3%) where the time value of money is material. Additional details on measurement and on the total potential payments under these arrangements are provided in Note 31.

Other provisions

Other provisions relate to the items shown in the table below. With the exception of employee provisions, the timing of cash outflows is by its nature uncertain.

Other provisions in millions of CHF

	2023	2022	2021
Sales returns [3]	481	588	514
Employee provisions	406	366	384
Other items	423	768	683
Total other provisions	**1,310**	**1,722**	**1,581**

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, in the countries in which it operates. 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 utilise other companies to help develop the Group's own potential new products. These arrangements and purchase agreements 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 and purchase agreements. The Group's current estimate of future third-party commitments for such potential payments within the next three years is given in Note 10.

Legal cases

At 31 December 2023 legal provisions included provisions for legal cases of CHF 55 million (2022: CHF 235 million), mainly related to legal cases in the Pharmaceuticals Division of CHF 16 million (2022: CHF 21 million) and in the Diagnostics Division of CHF 39 million (2022: CHF 214 million). Provisions have been recorded, and in some cases settled, mainly relating to the legal matters listed below.

Avastin/Lucentis investigations. On 14 February 2013 the Italian Antitrust Authority ('AGCM') announced an investigation to determine whether Roche, Genentech and Novartis had entered into an agreement to restrict competition in the Italian market for drugs, with reference in particular to Avastin (marketed by Roche) and Lucentis (marketed by Novartis). Avastin and Lucentis are two different drugs that were developed and approved for different therapeutic purposes and contain different active pharmaceutical ingredients. On 5 March 2014 the AGCM issued a verdict that alleges that Roche and Novartis colluded to artificially differentiate Avastin and Lucentis in order to foster the sales of Lucentis in Italy. The AGCM fined Roche EUR 90.5 million and Novartis EUR 92 million. Roche appealed the AGCM verdict to the Tribunale Amministrativo Regionale del Lazio ('TAR'). On 2 December 2014 the TAR upheld the decision by the AGCM. Roche appealed the verdict of the TAR to the Consiglio di Stato. In July 2014 Roche paid the EUR 90.5 million fine under protest to avoid additional penalty fees. On 23 January 2018 the European Court of Justice rendered its decision on five questions which had been referred to the European Court of Justice by the Consiglio di Stato. On 15 July 2019 the Consiglio di Stato issued the final verdict on the case and upheld the verdicts of both the AGCM and the TAR. Roche filed an appeal with the Corte Suprema di Cassazione, which was rejected on 5 October 2021. In addition, Roche filed a motion for revocation with the Consiglio di Stato, which was rejected on 8 May 2023. This matter is now concluded. On 24 January 2019 the French Competition Authority ('FCA') issued a Statement of Objections against Roche, Genentech and Novartis regarding anti-competitive practices concerning the commercialisation of Avastin and Lucentis in France. The FCA alleges that Roche, Genentech and Novartis abused their collective dominant position on the French market for the treatment of wet age-related macular degeneration between 2008 and 2013. On 9 September 2020 the FCA issued a decision finding that Roche, Genentech and Novartis had infringed competition law, and imposed a fine of EUR 60 million against Roche and Genentech. Roche and Genentech appealed this decision. In January 2021 the fine was paid under protest to avoid additional penalty fees. On 16 February 2023 the Paris Court of Appeal issued its ruling in the Group's favour. As a result, the FCA reimbursed the fine in March 2023 and an income of EUR 60 million was recorded in other operating income (expense) in 2023. In March 2023 the FCA appealed this decision. In September 2021 Roche received an administrative fine letter from the Turkish Competition Authority ('TCA'). In its investigation the TCA alleges that Roche and Novartis entered into a cartel aiming at preventing off-label applications of Avastin in order to foster on-label applications of Lucentis. In October 2021 the fine of TRY 85 million was paid under protest to avoid additional penalty fees. Roche filed an appeal against the decision. On 30 January 2023 the Ankara Administrative Court issued its ruling in the Group's favour. As a result, the TCA reimbursed the fine and an income of TRY 85 million was recorded in other operating income (expense) in 2023. In April 2023 the TCA appealed this decision. In addition, the Group is challenging policies and regulations allowing off-label/ unlicensed use and reimbursement for economic reasons in various countries. The Group is vigorously defending itself in these matters. The outcome of these matters cannot be determined at this time.

Boniva litigation. Hoffmann-La Roche, Inc. ('HLR'), Genentech and various other Roche affiliates (collectively 'Roche') have been named as defendants in numerous legal actions in the US and one now dismissed case in Canada relating to the post-menopausal osteoporosis medication Boniva. In these litigations, the plaintiffs allege that Boniva caused either osteonecrosis of the jaw or atypical femoral fractures. At 31 December 2023 Roche was defending approximately 206 actions involving approximately 245 plaintiffs brought in federal and state courts throughout the US for personal injuries allegedly resulting from the use of Boniva. All of these cases are in the early discovery stages of litigation. Individual trial results depend on a variety of factors, including many that are unique to the particular case. Roche is vigorously defending itself in these matters. The outcome of these matters cannot be determined at this time.

Meso litigation. In February 2017 Roche Diagnostics Corporation ('Roche') filed a lawsuit in the US District Court for the District of Delaware against Meso Scale Diagnostics, LLC ('Meso'). This is a patent infringement case involving certain US patents owned by BioVeris Corporation ('BioVeris'), a company acquired by the Group in 2007. Meso holds a limited exclusive licence to use certain aspects of the electrochemiluminescence ('ECL') detection technology. Roche and Meso disagree on the scope of the licence. The lawsuit is seeking a declaratory judgment to get judicial clarification that Roche is not infringing Meso's licence. On 25 November 2019 the jury found that Roche's use of the patents infringed the scope of Meso's licence. There was no injunction granted and the jury awarded Meso USD 137 million in damages. In 2020 post-trial motions were filed by both parties and Meso moved for enhancement, pre-judgment interest and post-judgment royalties. The court hearing took place on 6 May 2020. On 23 December 2020 the US District Court issued the final order of judgment in which the jury award was confirmed and Meso's request for enhanced damages was denied. The Group appealed this decision. On 8 April 2022 the US Court of Appeal issued its ruling. It reversed the induced infringement decision and vacated the damages award. The US Court of Appeal also affirmed that Roche directly infringed one patent and vacated the US District Court's decision on 23 December 2020 of non-infringement of three other patents. The case was remanded back to the US District Court for a new damages trial. On 7 March 2023 the parties agreed to a settlement that resolved all the disputes between them. On 27 March 2023 the court approved the joint stipulation for dismissal of the case. The matter is now concluded.

In addition, the legal cases in the Pharmaceuticals Division listed below do not currently have provisions recorded, but there are potential future obligations which will be confirmed only by the occurrence or non-occurrence of uncertain future events or where the obligation cannot be measured with sufficient reliability.

Hemlibra litigation. On 4 May 2017 Baxalta Inc. and Baxalta GmbH (both together 'Baxalta'), subsidiaries of Takeda Pharmaceutical Company Limited, filed a patent infringement and declaratory judgment of patent infringement suit in the US District Court for the District of Delaware, alleging that Genentech and Chugai Pharmaceutical Co., Ltd. ('Chugai') currently or imminently would manufacture, use, sell, offer for sale, or import into the US Hemlibra, which would infringe Baxalta's US Patent No. 7,033,590. Baxalta was seeking a judgment of infringement, injunctive and monetary relief, attorneys' fees, costs and expenses. On 11 May 2017 Genentech was served with the complaint. Genentech's response and counterclaims to the complaint were filed on 30 June 2017. On 19 June 2017 Chugai waived service. On 13 September 2017 Chugai filed a motion to dismiss the complaint for lack of personal jurisdiction. On 14 December 2017 Baxalta filed a request for a preliminary injunction against Genentech only, in which some inhibitor patients would not be subject to any injunction. A hearing was held in the US District Court for the District of Delaware on 13 and 14 June 2018 and during that hearing Baxalta withdrew its request for a preliminary injunction as to the inhibitor patients. On 25 June 2018 Baxalta submitted a new proposed preliminary injunction order, in which Genentech would be permitted to sell Hemlibra to all inhibitor patients, all non-inhibitor patients currently on Hemlibra whether through clinical trials or not, and selected non-inhibitor patients who have an additional 'medically diagnosed condition' which rendered factor VIII therapies impracticable. On 7 August 2018 the US District Court ruled against Baxalta, denying their request for an injunction. On 19 September 2018 Chugai was dismissed from this case. On 1 February 2019 the US District Court issued a final judgment in favour of Genentech stating that Hemlibra does not infringe Baxalta's patent based on the Court's definition of key terms related to the patent. On 8 February 2019 Baxalta appealed this decision. On 27 August 2020 the Appeals Court reversed the claim construction ruling of the US District Court in favour of Genentech and remanded the case back to the US District Court. On 3 September 2021 Genentech filed a motion for summary judgment on multiple grounds. On 19 November 2021 the US District Court heard Genentech's motions for summary judgment of invalidity, non-infringement under the doctrine of equivalence, and no wilful infringement. On 13 January 2022 the US District Court granted Genentech's motion for summary judgment of no enablement, which means that the previously scheduled trial will be cancelled. Baxalta appealed this ruling. On 20 September 2023 the US Federal Court affirmed the US District Court's decision from 13 January 2022. The matter is now concluded.

Iraqi Ministry of Health. In October 2017 F. Hoffmann-La Roche Ltd ('FHLR'), Hoffmann-La Roche, Inc. ('HLR') and Genentech and certain other pharmaceutical and/or medical device companies were named as defendants in a complaint filed in the Federal District Court for the District of Columbia, US, on behalf of US service members and their relatives who allege that they were killed or injured in Iraq between 2005 and 2009 (the 'Iraq lawsuit'). The complaint alleges that the defendants violated the US Anti-Terrorism Act and various state laws by providing funding for terrorist organisations through their sales practices pursuant to pharmaceutical and/or medical device contracts with the Iraqi Ministry of Health. In addition FHLR received an inquiry in July 2018 from the US Department of Justice in connection with an anti-corruption investigation relating to activities in Iraq, including interactions with the Iraqi government and certain of the same matters alleged in the Iraq lawsuit. On 29 October 2019 the US Department of Justice closed its inquiry against FHLR. On 17 July 2020 the Federal District Court granted the defendants' motions to dismiss. The plaintiffs appealed this decision. On 4 January 2022 the US Court of Appeals for the District of Columbia Circuit reversed the decision of the Federal District Court and remanded the case for further proceedings. Defendants filed petitions for rehearing en banc by the US Court of Appeals for the District of Columbia Circuit, which were denied on 2 February 2023. On 1 March 2023 the Federal District Court granted defendants' motion for a temporary partial stay pending the US Supreme Court's decision on a related matter. On 18 May 2023 the US Supreme Court reversed the decision in the related matter, clarifying the law under the US Anti-Terrorism Act. On 30 June 2023 defendants filed a petition for certiorari to the US Supreme Court on the merits asking the US Supreme Court to grant, vacate and remand for further proceedings as a result of another of its recent decisions on the US Anti-Terrorism Act, which remains pending. The Group is vigorously defending itself in this matter. The outcome of this matter cannot be determined at this time.

Tamiflu qui tam litigation. In 2019, Roche Holding Ltd ('Roche Holding'), Hoffmann-La Roche, Inc. ('HLR') and Genentech, Inc. ('Genentech') were served with a lawsuit filed by a relator in the US District Court for the District of Maryland under the qui tam (whistleblower) provisions of the False Claims Act. The lawsuit was originally filed under seal years earlier on behalf of the US government and various US state governments. The lawsuit alleges certain improper conduct by the Group with respect to sales of Tamiflu to the US government and various US state governments. The US Department of Justice declined to intervene in the lawsuit. On 17 January 2020 the Group filed a motion to dismiss. On 28 September 2020 the plaintiff dismissed the complaint as to Roche Holding and Genentech and the District Court denied HLR's motion for summary judgment. On 4 November 2022 the US Department of Justice filed a motion to dismiss the claim. The motion was stayed pending a decision from the US Supreme Court on a related matter. This decision was issued in June 2023. On 12 July 2023 the whistleblower filed a stipulation of voluntary dismissal of all his claims, including all of those asserted on behalf of the US government and various US state governments. The stipulation was approved by the US District Court for the District of Maryland on 13 July 2023. The matter is now concluded.

Novartis litigation related to Cabilly royalties. Following the expiry of the Cabilly patent in December 2018, Genentech and Novartis discussed Cabilly royalties owed for Cosentyx and Ilaris manufactured in, or imported into, the US prior to patent expiry but sold after patent expiry (the 'Inventory Dispute'). On 25 May 2021 Novartis Vaccines and Diagnostics, Inc. and Novartis Pharma AG (collectively 'Novartis') filed a lawsuit against Genentech, Inc. ('Genentech') in California state court, in San Mateo County. Novartis alleged that it mistakenly overpaid, and is entitled to the return of, certain Cabilly royalties for its products Cosentyx and Ilaris, totalling USD 210 million. Among other things, Novartis claimed that Cosentyx was not a 'Licensed Product' within the meaning of the contract. On 24 June 2021 Genentech filed a notice of removal, seeking to move the case from state court to federal court. On 1 July 2021 Genentech filed a motion to dismiss all the claims on various grounds. In response to Genentech's motion, Novartis withdrew its initial complaint and filed an amended complaint on 20 August 2021. On 3 September 2021 Genentech filed a motion to dismiss the amended complaint on similar grounds. On 11 February 2022 Novartis and Genentech engaged in a voluntary mediation, which did not result in a settlement outcome. On 2 May 2023 the court dismissed with prejudice Novartis' five state-law claims seeking a refund for royalties paid under the parties' Cabilly licence. The court found the claims to be foreclosed by the federal patent bar and denied, as futile, Novartis' request for leave to amend the complaint. The court denied Genentech's motion to dismiss with respect to Novartis' remaining claim for a judicial declaration that it did not owe royalties in relation to the Inventory Dispute, and that claim will proceed.

Herceptin investigation. On 8 February 2022 the South African Competition Commission ('Commission') filed a referral with the Competition Tribunal for prosecution of Roche Holding Ltd, F. Hoffmann-La Roche Ltd and Roche Products (Pty) Ltd (together 'Roche') for alleged excessive pricing of trastuzumab (Herceptin) in contravention of the South African Competition Act. The Commission's referral affidavit also alleges that the excessive price of Herceptin constitutes a violation of basic human rights including the right of access to healthcare enshrined in South Africa's Bill of Rights as it denies access to life-saving medicine for women living with breast cancer. The alleged excessive pricing of Herceptin by Roche took place between January 2011 and November 2020 in the South African private healthcare sector and in the South African public healthcare sector during the period from November 2015 to July 2020. The Commission has asked the Competition Tribunal to impose a penalty against Roche. On 14 October 2022 Roche submitted its replies to the Competition Tribunal. The Group is vigorously defending itself in this matter. The outcome of this matter cannot be determined at this time.

University of Pennsylvania litigation. On 31 January 2022 the University of Pennsylvania filed a patent litigation action in the US against Genentech, Inc. ('Genentech') based on a claim that Herceptin, Perjeta, Phesgo and Herceptin Hylecta would infringe their US Patent No. 7,625,558 (the '558 patent). According to the complaint, the '558 patent generally relates to methods of treating ErbB (HER2) protein-mediated cancer tumours by administering a compound that inhibits the formation of ErbB (HER2) followed by radiation. Genentech filed a partial motion to dismiss the University of Pennsylvania's claims of wilfulness on 24 March 2022, which was granted on 2 December 2022. The University of Pennsylvania filed a motion to amend its complaint to add wilfulness back in, which was granted by the court on 5 May 2023. The University of Pennsylvania filed a first amended complaint on 17 May 2023. A jury trial was scheduled for September 2024 but that date was vacated and a new trial date has not been set. The Group is vigorously defending itself in this matter. The outcome of this matter cannot be determined at this time.

21. Debt

Debt: movements in carrying value of recognised liabilities in millions of CHF

	2023	2022
At 1 January	25,351	31,198
Proceeds from issue of bonds and notes	8,167	8,442
Redemption and repurchase of bonds and notes	(1,751)	(1,750)
Increase (decrease) in commercial paper	(806)	1,293
Increase (decrease) in other debt	175	(13,683)
Changes from financing cash flows	**5,785**	**(5,698)**
Net (gains) losses on redemption and repurchase of bonds and notes [4]	0	0
Amortisation of debt discount [4]	8	4
Financing costs	**8**	**4**
Business combinations	0	0
Asset acquisitions	0	0
Net foreign currency transaction (gains) losses	3	47
Currency translation effects	(2,026)	(64)
Changes in foreign exchange rates	**(2,023)**	**(17)**
Changes in fair values of hedging instruments	88	(136)
Other changes	0	0
At 31 December	**29,209**	**25,351**
Bonds and notes	27,812	23,158
Commercial paper	848	1,755
Amounts due to banks and other financial institutions	547	436
Other borrowings	2	2
Total debt	**29,209**	**25,351**
Long-term debt	24,809	21,391
Short-term debt	4,400	3,960
Total debt	**29,209**	**25,351**

There are no pledges on the Group's assets in connection with debt.

Bonds and notes

Recognised liabilities and effective interest rates of bonds and notes in millions of CHF

	Effective interest rate Underlying instrument	Effective interest rate Including hedging	2023	2022	2021
US dollar notes – fixed rate					
3.25% notes due 17 September 2023, principal USD 0.75 billion, outstanding USD 0.39 billion (ISIN: US771196BN10)	3.32%	4.08%	–	349	354
0.45% notes due 5 March 2024, principal USD 0.5 billion (ISIN: US771196BQ41)	0.49%	2.75%	418	437	451
1.882% notes due 8 March 2024, principal USD 1.25 billion (ISIN: US771196BU52)	1.95%	n/a	1,055	1,153	–
3.35% notes due 30 September 2024, principal USD 1.65 billion, outstanding USD 0.59 billion (ISIN: US771196BE11)	3.40%	n/a	497	544	538
2.132% notes due 10 March 2025, principal USD 1.0 billion (ISIN: US771196BT89)	2.19%	n/a	844	922	–
3.0% notes due 10 November 2025, principal USD 1.0 billion, outstanding USD 0.51 billion (ISIN: US771196BJ08)	3.14%	n/a	426	466	461
0.991% notes due 5 March 2026, principal USD 0.65 billion (ISIN: US771196BS07)	1.03%	4.07%	510	539	582
2.625% notes due 15 May 2026, principal USD 1.0 billion (ISIN: US771196BK70)	2.78%	n/a	842	919	909
5.265% notes due 13 November 2026, principal USD 1.1 billion (ISIN: US771196CE02)	5.38%	n/a	927	–	–
2.375% notes due 28 January 2027, principal USD 0.85 billion (ISIN: US771196BL53)	2.54%	n/a	715	781	771
2.314% notes due 10 March 2027, principal USD 1.25 billion (ISIN: US771196BV36)	2.37%	n/a	1,054	1,152	–
3.625% notes due 17 September 2028, principal USD 0.65 billion (ISIN: US771196BP67)	3.69%	n/a	548	599	593
5.338% notes due 13 November 2028, principal USD 1.25 billion (ISIN: US771196CF76)	5.45%	n/a	1,053	–	–
1.93% notes due 13 December 2028, principal USD 2.0 billion (ISIN: US771196BW19)	1.97%	n/a	1,686	1,843	1,824
5.489% notes due 13 November 2030, principal USD 1.25 billion (ISIN: US771196CG59)	5.60%	n/a	1,053	–	–
2.076% notes due 13 December 2031, principal USD 2.0 billion (ISIN: US771196BX91)	2.11%	2.16%	1,685	1,842	1,823
5.593% notes due 13 November 2033, principal USD 1.6 billion (ISIN: US771196CH33)	5.71%	n/a	1,347	–	–
7.0% notes due 1 March 2039, principal USD 2.5 billion, outstanding USD 1.12 billion (ISIN: USU75000AN65 and US771196AU61)	7.43%	7.39%	916	1,001	990
4.0% notes due 28 November 2044, principal USD 0.65 billion (ISIN: US771196BH42)	4.16%	n/a	541	591	585
2.607% notes due 13 December 2051, principal USD 2.0 billion (ISIN: US771196BY74)	2.65%	2.74%	1,680	1,838	1,818
US dollar notes – floating rate					
Notes due 11 September 2023, principal USD 0.75 billion (ISIN: US771196BZ40)	3.90%	n/a	–	692	–
Notes due 5 March 2024, principal USD 0.35 billion (ISIN: US771196BR24)	2.86%	n/a	295	323	319
Notes due 10 March 2025, principal USD 0.75 billion (ISIN: US771196CA89)	4.99%	n/a	633	692	–
Notes due 13 November 2026, principal USD 0.3 billion (ISIN: US771196CD29)	6.21%	n/a	253	–	–
Euro Medium Term Note programme – fixed rate					
0.5% notes due 27 February 2023, principal EUR 0.65 billion (ISIN: XS1371715118)	0.63%	0.67%	–	639	672
5.375% notes due 29 August 2023, principal GBP 0.25 billion, outstanding GBP 0.08 billion (ISIN: XS0175478873)	5.46%	n/a	–	85	95
0.875% notes due 25 February 2025, principal EUR 1.0 billion (ISIN: XS1195056079)	0.93%	1.11%	926	968	1,032
Euro bonds – fixed rate					
3.312% bonds due 4 December 2027, principal EUR 0.6 billion (ISIN: XS2726331932)	3.35%	n/a	560	–	–
3.204% bonds due 27 August 2029, principal EUR 0.75 billion (ISIN: XS2592088236)	3.24%	n/a	699	–	–
3.355% bonds due 27 February 2035, principal EUR 0.5 billion (ISIN: XS2592088400)	3.38%	n/a	466	–	–
3.586% bonds due 4 December 2036, principal EUR 0.9 billion (ISIN: XS2726335099)	3.61%	n/a	838	–	–

Recognised liabilities and effective interest rates of bonds and notes in millions of CHF *(continued)*

	Effective interest rate Underlying instrument	Effective interest rate Including hedging	2023	2022	2021
Swiss franc bonds – fixed rate					
1.625% bonds due 23 September 2022, principal CHF 0.5 billion (ISIN: CH0180513183)	1.64%	1.39%	–	–	501
0.1% bonds due 23 September 2024, principal CHF 0.75 billion (ISIN: CH0358654975)	0.11%	0.61%	738	721	748
0.25% bonds due 24 September 2025, principal CHF 0.5 billion (ISIN: CH0433761308)	0.25%	0.52%	494	486	500
1.5% bonds due 23 June 2026, principal CHF 0.425 billion (ISIN: CH1211713222)	1.48%	n/a	425	426	–
0.5% bonds due 25 February 2027, principal CHF 0.825 billion (ISIN: CH1166151899)	0.42%	0.48%	829	828	–
1.6% bonds due 15 September 2028, principal CHF 0.14 billion (ISIN: CH1305916764)	1.62%	n/a	140	–	–
0.45% bonds due 23 March 2029, principal CHF 0.35 billion (ISIN: CH0359915409)	0.46%	n/a	350	350	350
0.75% bonds due 24 September 2030, principal CHF 0.4 billion (ISIN: CH0433761316)	0.74%	n/a	400	400	400
0.75% bonds due 25 February 2031, principal CHF 0.625 billion (ISIN: CH1166151907)	0.71%	n/a	627	627	–
2.0% bonds due 23 September 2032, principal CHF 0.375 billion (ISIN: CH1211713230)	2.00%	n/a	375	375	–
1.75% bonds due 15 September 2033, principal CHF 0.19 billion (ISIN: CH1305916772)	1.77%	n/a	190	–	–
1.0% bonds due 25 February 2037, principal CHF 0.3 billion (ISIN: CH1166151915)	0.91%	n/a	303	304	–
1.95% bonds due 15 September 2038, principal CHF 0.23 billion (ISIN: CH1305916780)	1.93%	n/a	231	–	–
Genentech Senior Notes					
5.25% Senior Notes due 15 July 2035, principal USD 0.5 billion, outstanding USD 0.29 billion (ISIN: US368710AC32)	5.39%	n/a	243	266	263
Total bonds and notes			**27,812**	**23,158**	**16,579**

Bonds and notes maturity in millions of CHF

	2023	2022	2021
Within one year	3,004	1,764	501
Between one and two years	3,322	3,179	1,121
Between two and three years	2,957	3,534	2,057
Between three and four years	3,157	1,883	1,993
Between four and five years	3,427	2,761	1,490
More than five years	11,945	10,037	9,417
Total bonds and notes	**27,812**	**23,158**	**16,579**

Unamortised discount included in carrying value of bonds and notes in millions of CHF

	2023	2022	2021
US dollar notes	66	69	72
Euro notes and bonds	6	1	3
Swiss franc bonds	(8)	(9)	0
Total unamortised discount	**64**	**61**	**75**

Issuance of bonds and notes – 2023

On 27 February 2023 the Group completed an offering of EUR 0.75 billion fixed rate bonds with a coupon of 3.204% and EUR 0.5 billion fixed rate bonds with a coupon of 3.355%. The bonds will mature on 27 August 2029 and 27 February 2035, respectively. These bonds have a primary listing at the SIX Swiss Exchange. The Group received CHF 1,238 million aggregate net proceeds from the issuance and sale of these fixed rate bonds.

On 13 November 2023 the Group completed an offering of USD 1.1 billion fixed rate notes with a coupon of 5.265%, USD 1.25 billion fixed rate notes with a coupon of 5.338%, USD 1.25 billion fixed rate notes with a coupon of 5.489% and USD 1.6 billion fixed rate notes with a coupon of 5.593%. The notes will mature on 13 November 2026, 13 November 2028, 13 November 2030 and 13 November 2033, respectively. The Group received CHF 4,684 million aggregate net proceeds from the issuance and sale of these fixed rate notes.

Also on 13 November 2023 the Group completed an offering of USD 0.3 billion floating rate notes at a rate equal to the Secured Overnight Financing Rate (SOFR) plus a margin of 0.74%, which will mature on 13 November 2026. The Group received CHF 270 million aggregate net proceeds from the issuance and sale of these floating rate notes.

On 4 December 2023 the Group completed an offering of EUR 0.6 billion fixed rate bonds with a coupon of 3.312% and EUR 0.9 billion fixed rate bonds with a coupon of 3.586%. The bonds will mature on 4 December 2027 and 4 December 2036, respectively. These bonds have a primary listing at the SIX Swiss Exchange. The Group received CHF 1,415 million aggregate net proceeds from the issuance and sale of these fixed rate bonds.

On 15 December 2023 the Group completed an offering of CHF 0.14 billion fixed rate bonds with a coupon of 1.6%, CHF 0.19 billion fixed rate bonds with a coupon of 1.75% and CHF 0.23 billion fixed rate bonds with a coupon of 1.95%. The bonds will mature on 15 September 2028, 15 September 2033 and 15 September 2038, respectively. These bonds are listed at the SIX Swiss Exchange. The Group received CHF 560 million aggregate net proceeds from the issuance and sale of these fixed rate bonds.

Issuance of bonds and notes – 2022

On 25 February 2022 the Group completed an offering of CHF 3.0 billion fixed rate bonds issued in four tranches, of which CHF 1.25 billion for bonds with a zero coupon, CHF 0.825 billion for bonds with a coupon of 0.5%, CHF 0.625 billion for bonds with a coupon of 0.75% and CHF 0.3 billion for bonds with a coupon of 1.0%. The zero coupon fixed rate bonds with a principal amount of CHF 1.25 billion matured on 25 November 2022. The other bonds will mature on 25 February 2027, 25 February 2031 and 25 February 2037, respectively. These bonds are listed at the SIX Swiss Exchange. The Group received CHF 3,014 million aggregate net proceeds from the issuance and sale of these fixed rate bonds.

On 10 March 2022 the Group completed an offering of USD 1.25 billion fixed rate notes with a coupon of 1.882%, USD 1.0 billion fixed rate notes with a coupon of 2.132% and USD 1.25 billion fixed rate notes with a coupon of 2.314%. The notes will mature on 8 March 2024, 10 March 2025 and 10 March 2027, respectively. The Group received CHF 3,237 million aggregate net proceeds from the issuance and sale of these fixed rate notes.

Also on 10 March 2022 the Group completed an offering of USD 0.75 billion floating rate notes at a rate equal to the Secured Overnight Financing Rate (SOFR) plus a margin of 0.33%, which matured on 11 September 2023, and USD 0.75 billion floating rate notes at a rate equal to the SOFR plus a margin of 0.56%, which will mature on 10 March 2025. The Group received CHF 1,391 million aggregate net proceeds from the issuance and sale of these floating rate notes.

On 23 September 2022 the Group completed an offering of CHF 0.8 billion fixed rate bonds issued in two tranches, of which CHF 0.425 billion for bonds with a coupon of 1.5% and CHF 0.375 billion for bonds with a coupon of 2.0%. The bonds will mature on 23 June 2026 and 23 September 2032, respectively. These bonds are listed at the SIX Swiss Exchange. The Group received CHF 800 million aggregate net proceeds from the issuance and sale of these fixed rate bonds.

Redemption and repurchase of bonds and notes – 2023

On the due date of 27 February 2023 the Group redeemed the 0.5% fixed rate notes with principal amount of EUR 0.65 billion. The cash outflow was CHF 645 million, plus accrued interest. The effective interest rate of these notes was 0.63%.

On the due date of 29 August 2023 the Group redeemed the 5.375% fixed rate notes with an outstanding amount of GBP 0.08 billion. The cash outflow was CHF 86 million, plus accrued interest. The effective interest rate of these notes was 5.46%.

On the due date of 11 September 2023 the Group redeemed floating rate notes with principal amount of USD 0.75 billion. The cash outflow was CHF 670 million, plus accrued interest. The effective interest rate of these notes was 3.90%.

On the due date of 17 September 2023 the Group redeemed the 3.25% fixed rate notes with an outstanding amount of USD 0.39 billion. The cash outflow was CHF 350 million, plus accrued interest. The effective interest rate of these notes was 3.32%.

Redemption and repurchase of bonds and notes – 2022

On the due date of 23 September 2022 the Group redeemed the 1.625% fixed rate bonds with a principal amount of CHF 0.5 billion. The cash outflow was CHF 500 million, plus accrued interest. The effective interest rate of these bonds was 1.64%.

On the due date of 25 November 2022 the Group redeemed the zero coupon fixed rate bonds with a principal amount of CHF 1.25 billion. The cash outflow was CHF 1,250 million. The effective interest rate of these bonds was –0.45%.

Cash flows from issuance, redemption and repurchase of bonds and notes

Cash inflows from issuance of bonds and notes in millions of CHF

	2023	2022
US dollar notes	4,954	4,628
Euro bonds	2,653	0
Swiss franc bonds	560	3,814
Total cash inflows from issuance of bonds and notes	**8,167**	**8,442**

Cash outflows from redemption and repurchase of bonds and notes in millions of CHF

	2023	2022
Euro Medium Term Note programme – Euro notes	(645)	0
Euro Medium Term Note programme – Pound sterling notes	(86)	0
US dollar notes	(1,020)	0
Swiss franc bonds	0	(1,750)
Total cash outflows from redemption and repurchase of bonds and notes	**(1,751)**	**(1,750)**

Commercial paper

Roche Holdings, Inc. commercial paper program. Roche Holdings, Inc. has an established commercial paper program under which it can issue up to USD 7.5 billion of unsecured commercial paper notes guaranteed by Roche Holding Ltd. The committed credit line that is available as a back-stop supporting the commercial paper program is USD 7.5 billion at 31 December 2023 (2022: USD 7.5 billion). On 3 July 2019 the previously existing committed credit lines were refinanced by one new committed credit line with an initial maturity of five years and two annual extension options, both of which were exercised extending the maturity to 2026. The maturity of the notes under the program cannot exceed 365 days from the date of issuance. At 31 December 2023 unsecured commercial paper notes with a principal amount of USD 1.0 billion (2022: USD 1.9 billion) and an average interest rate of 5.34% (2022: 4.18%) were outstanding.

Movements in commercial paper obligations in millions of CHF

	2023	2022
At 1 January	1,755	500
Net cash proceeds (payments)	(806)	1,293
Currency translation effects	(101)	(38)
At 31 December	**848**	**1,755**

Amounts due to banks and other financial institutions

At 31 December 2023 the amounts outstanding of CHF 547 million (2022: CHF 436 million, 2021: CHF 14,118 million) are due within one year. These amounts are denominated in various currencies and the average interest rate was 3.30% (2022: 3.37%, 2021: 0.25%). At 31 December 2021 this position included the bridge loan facility drawn in December 2021 to finance the share repurchase transaction (see Note 22). The bridge loan facility was fully repaid by May 2022, partly from the proceeds from the new debt issuances and partly from internal cash generation. At 31 December 2021 the amount of the bridge loan facility outstanding was CHF 13.5 billion. On 19 January 2024 the Group executed a short-term bridge facility agreement of USD 5.0 billion with banks for general corporate purposes including but not limited to mergers and acquisitions and repayments of maturing debts. The bridge facility has an initial maturity of six months and two extension options for three months each.

22. Equity attributable to Roche shareholders

Changes in equity attributable to Roche shareholders in millions of CHF

	Share capital	Retained earnings	Fair value reserves	Hedging reserves	Translation reserves	Total
Year ended 31 December 2022						
At 1 January 2022	160	34,161	(60)	(60)	(9,712)	24,489
Net income recognised in income statement	–	12,421	–	–	–	12,421
Financial assets at fair value through OCI						
– Fair value gains (losses) – equity investments at fair value through OCI	–	–	28	–	–	28
– Fair value gains (losses) taken to retained earnings on disposal of equity investments at fair value through OCI	–	0	0	–	–	–
– Fair value gains (losses) – debt securities at fair value through OCI	–	–	(35)	–	–	(35)
– Fair value gains (losses) transferred to income statement – debt securities at fair value through OCI	–	–	0	–	–	0
– Income taxes [5]	–	0	4	–	–	4
– Non-controlling interests	–	0	1	–	–	1
Cash flow hedges						
– Gains (losses) taken to equity [31]	–	–	–	(238)	–	(238)
– Transferred to income statement [31]	–	–	–	366	–	366
– Transferred to initial carrying amount of hedged items [31]	–	–	–	(218)	–	(218)
– Income taxes [5]	–	–	–	28	–	28
– Non-controlling interests	–	–	–	25	–	25
Currency translation of foreign operations						
– Exchange differences	–	–	3	5	(1,723)	(1,715)
– Accumulated differences transferred to income statement on divestment of subsidiaries	–	–	–	–	12	12
– Non-controlling interests	–	–	–	–	522	522
Defined benefit plans						
– Remeasurement gains (losses) [26]	–	2,372	–	–	–	2,372
– Limit on asset recognition [26]	–	(1,523)	–	–	–	(1,523)
– Income taxes [5]	–	(303)	–	–	–	(303)
– Non-controlling interests	–	(9)	–	–	–	(9)
Other comprehensive income, net of tax	**–**	**537**	**1**	**(32)**	**(1,189)**	**(683)**
Total comprehensive income	**–**	**12,958**	**1**	**(32)**	**(1,189)**	**11,738**
Dividends	–	(7,446)	–	–	–	(7,446)
Share capital reduction	(53)	53	–	–	–	–
Equity compensation plans, net of transactions in own equity	–	(786)	–	–	–	(786)
Changes in non-controlling interests	–	(3)	–	–	–	(3)
At 31 December 2022	**107**	**38,937**	**(59)**	**(92)**	**(10,901)**	**27,992**

Changes in equity attributable to Roche shareholders in millions of CHF

	Share capital	Retained earnings	Fair value reserves	Hedging reserves	Translation reserves	Total
Year ended 31 December 2023						
At 1 January 2023	107	38,937	(59)	(92)	(10,901)	27,992
Net income recognised in income statement	–	11,498	–	–	–	11,498
Financial assets at fair value through OCI						
– Fair value gains (losses) – equity investments at fair value through OCI	–	–	(72)	–	–	(72)
– Fair value gains (losses) taken to retained earnings on disposal of equity investments at fair value through OCI	–	(16)	16	–	–	–
– Fair value gains (losses) – debt securities at fair value through OCI	–	–	13	–	–	13
– Fair value gains (losses) transferred to income statement – debt securities at fair value through OCI	–	–	0	–	–	0
– Income taxes [5]	–	4	4	–	–	8
– Non-controlling interests	–	1	(1)	–	–	0
Cash flow hedges						
– Gains (losses) taken to equity [31]	–	–	–	(344)	–	(344)
– Transferred to income statement [31]	–	–	–	437	–	437
– Transferred to initial carrying amount of hedged items [31]	–	–	–	(111)	–	(111)
– Income taxes [5]	–	–	–	6	–	6
– Non-controlling interests	–	–	–	5	–	5
Currency translation of foreign operations						
– Exchange differences	–	–	2	9	(2,656)	(2,645)
– Accumulated differences transferred to income statement on divestment of subsidiaries	–	–	–	–	1	1
– Non-controlling interests	–	–	–	–	604	604
Defined benefit plans						
– Remeasurement gains (losses) [26]	–	(691)	–	–	–	(691)
– Limit on asset recognition [26]	–	527	–	–	–	527
– Income taxes [5]	–	41	–	–	–	41
– Non-controlling interests	–	(5)	–	–	–	(5)
Other comprehensive income, net of tax	**–**	**(139)**	**(38)**	**2**	**(2,051)**	**(2,226)**
Total comprehensive income	**–**	**11,359**	**(38)**	**2**	**(2,051)**	**9,272**
Dividends	–	(7,590)	–	–	–	(7,590)
Equity compensation plans, net of transactions in own equity	–	(358)	–	–	–	(358)
Changes in non-controlling interests	–	(1)	–	–	–	(1)
At 31 December 2023	**107**	**42,347**	**(97)**	**(90)**	**(12,952)**	**29,315**

Share repurchase and share capital reduction

On 26 November 2021, an Extraordinary General Meeting of Roche shareholders approved a reduction of the share capital of Roche Holding Ltd, which is the Group's parent company, by CHF 53.3 million from CHF 160.0 million to CHF 106.7 million through the cancellation of all such shares to be repurchased from Novartis. On 6 December 2021, the Roche Group repurchased 53.3 million Roche shares held by Novartis for a total consideration of CHF 19.0 billion. The repurchased shares were reported as treasury shares as at 31 December 2021. These shares were cancelled in February 2022 when the necessary legal procedures had been completed. Upon cancellation of these shares, the share capital of Roche Holding Ltd decreased by CHF 53.3 million from CHF 160.0 million to CHF 106.7 million. The reduction in the share capital became effective at the beginning of February 2022, with the entry of the share capital reduction in the commercial register of the Canton of Basel-Stadt on 3 February 2022 and the publication of the share capital reduction in the Swiss Official Gazette of Commerce on 8 February 2022. The CHF 19.0 billion credit facility from banks drawn in 2021 to finance the share repurchase was fully repaid by May 2022, partly from the proceeds from the new debt issuances and partly from internal cash generation.

Share capital

At 31 December 2023 the authorised and issued share capital of Roche Holding Ltd, which is the Group's parent company, consisted of 106,691,000 shares with a nominal value of CHF 1.00 each, as in the preceding year. The shares are bearer shares and the Group does not maintain a register of shareholders. At 31 December 2023, based on the information available to the Group, a shareholder group with pooled voting rights owned 69,318,000 shares representing 64.97% of the issued shares (31 December 2022: 72,018,000 shares representing 67.50% of the issued shares). On 5 December 2019 the shareholder group announced that it would continue the shareholder pooling agreement existing since 1948 with a modified shareholder composition. The duration of the pool was extended for an indefinite period in 2009. At 31 December 2023, based on the information available to the Group, Ms Maja Oeri, formerly a member of the pool, held 8,091,900 shares independently of the pool, representing 7.58% of the issued shares (31 December 2022: 8,091,900 shares representing 7.58% of the issued shares). This is further described in Note 32.

Non-voting equity securities (*Genussscheine*)

At 31 December 2023, 702,562,700 non-voting equity securities had been authorised and were in issue as in the preceding year. Under Swiss company law these non-voting equity securities have no nominal value, are not part of the share capital and cannot be issued against a contribution which would be shown as an asset in the balance sheet of Roche Holding Ltd. Each non-voting equity security confers the same rights as any of the shares to participate in the net profit and any remaining proceeds from liquidation following repayment of the nominal value of the shares and, if any, participation certificates. In accordance with the law and the Articles of Incorporation of Roche Holding Ltd, the General Meeting of the company's shareholders is entitled at all times to exchange shares or participation certificates for all or some of the non-voting equity securities without the consent of the bearers thereof.

Dividends

On 14 March 2023 the shareholders approved the distribution of a dividend of CHF 9.50 per share and non-voting equity security (2022: CHF 9.30) in respect of the 2022 business year. The distribution to holders of outstanding shares and non-voting equity securities totalled CHF 7,590 million (2022: CHF 7,446 million), which was recorded against retained earnings in 2023. The Board of Directors has proposed dividends for the 2023 business year of CHF 9.60 per share and non-voting equity security. This dividend proposal is subject to approval at the Annual General Meeting on 12 March 2024. If approved, this would result in a total distribution to shareholders of CHF 7,769 million.

Own equity instruments

Holdings of own equity instruments in number of shares and non-voting equity securities

	2023 (millions)	2022 (millions)
Shares	0.5	0
Non-voting equity securities	11.5	10.1
Total	**12.0**	**10.1**

On 10 February 2023, the Group announced that it had acquired 540,000 shares for a total consideration of CHF 166 million. The repurchased shares were initially reported as treasury shares subsequent to acquisition and will be used to cover current as well as future obligations arising from equity compensation plans. This announcement followed from reports that a member of a shareholder group with pooled voting rights sold 2.7 million Roche shares (see Note 32).

Own equity instruments are recorded within equity at original purchase cost. At 31 December 2023 the fair value of shares was CHF 136 million (2022: CHF 7 million) and the fair value of non-voting equity securities was CHF 2.8 billion (2022: CHF 2.9 billion). Own equity instruments are held for the Group's potential conversion obligations that may arise from the Group's equity compensation plans (see Note 27).

Reserves

Fair value reserve. At 31 December 2023 and 2022 the fair value reserve represents the cumulative net change in the fair value of financial assets 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 Group companies that use functional currencies other than Swiss francs.

23. Subsidiaries and associates

Chugai

Effective 1 October 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. The merged company is known as Chugai.

Consolidated subsidiary. Chugai is a fully consolidated subsidiary of the Group. This is based on the Group's interest in Chugai at 31 December 2023 of 61.1% (2022: 61.1%) and the Roche relationship with Chugai that is founded on the Basic Alliance, Licensing and Research Collaboration Agreements.

The common stock of Chugai is publicly traded and is listed on the Tokyo Stock Exchange under the stock code 'TSE:4519'. Chugai prepares financial statements in accordance with IFRS Accounting Standards that are filed on a quarterly basis with the Tokyo Stock Exchange. Due to certain consolidation entries there are minor differences between Chugai's stand-alone IFRS results and the results of Chugai as consolidated by the Roche Group and included in these Annual Financial Statements.

Chugai summarised financial information in millions of CHF

	2023	2022
Income statement		
Sales [2]	6,235	7,551
Other revenue [2]	968	1,721
Total revenues	**7,203**	**9,272**
Operating profit [2]	2,915	3,988
Balance sheet		
Non-current assets	3,403	3,720
Current assets	8,207	9,329
Non-current liabilities	(130)	(171)
Current liabilities	(1,717)	(2,937)
Total net assets	**9,763**	**9,941**
Cash flows		
Cash flows from operating activities	2,623	1,774
Cash flows from investing activities	(239)	(1,061)
Cash flows from financing activities	(891)	(1,058)

Dividends. The dividends distributed to third parties holding Chugai shares during 2023 totalled CHF 327 million (2022: CHF 390 million) and were recorded against non-controlling interests (see Note 24). Dividends paid by Chugai to Roche are eliminated on consolidation as intercompany items.

Roche's relationship with Chugai. Chugai has entered into certain agreements with Roche, which are discussed below:

(1) Basic Alliance Agreement – As part of the Basic Alliance Agreement signed in December 2001 and partially revised in July 2022, 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 issues additional shares of common stock in connection with its convertible debt and equity compensation plans, and may issue additional shares 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.

(2) 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 has the 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 Chugai shall offer and 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 of the respective products to meet the other party's clinical and/or commercial requirements on an arm's length basis.

(3) 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.

Associates

On 21 December 2021 the Group acquired an interest in Freenome Holdings, Inc. ('Freenome'), a privately owned US company based in South San Francisco, California. At 31 December 2023 the Group's interest in Freenome was 15.9% (31 December 2022: 16.4%). This investment has been assessed and is treated as an associate of the Group. The Group accounts for Freenome using the equity method based on Freenome's financial statements that are made available to the Group. The carrying value of the Group's share of Freenome's net assets, an asset of CHF 242 million (31 December 2022: CHF 299 million), is included in other non-current assets (see Note 15). The Group's share of Freenome's results, a loss of CHF 34 million (2022: a loss of CHF 40 million), is included in other financial income (expense) (see Note 4). On 26 January 2024 the Group made a further investment of USD 50 million.

24. Non-controlling interests

Changes in equity attributable to non-controlling interests in millions of CHF

	2023	2022
At 1 January	4,023	3,856
Net income recognised in income statement		
– Chugai	844	1,093
– Other non-controlling interests	16	17
Total net income recognised in income statement	**860**	**1,110**
Equity investments at fair value through OCI	0	(1)
Debt securities at fair value through OCI	0	0
Cash flow hedges	(5)	(25)
Currency translation of foreign operations	(604)	(522)
Remeasurements of defined benefit plans	5	9
Other comprehensive income, net of tax	**(604)**	**(539)**
Total comprehensive income	**256**	**571**
Business combinations	0	0
Dividends to non-controlling shareholders		
– Chugai [23]	(327)	(390)
– Other non-controlling interests	(7)	(16)
Equity compensation plans, net of transactions in own equity	2	(1)
Changes in non-controlling interests	1	3
At 31 December	**3,948**	**4,023**
Chugai	3,755	3,816
Other non-controlling interests	193	207
Total non-controlling interests	**3,948**	**4,023**

25. Employee benefits

Employee remuneration in millions of CHF

	2023	2022
Wages and salaries	12,375	11,778
Social security costs	1,150	1,184
Defined contribution plans [26]	469	452
Operating expenses for defined benefit plans [26]	453	611
Equity compensation plans [27]	830	738
Termination costs [7]	425	(38)
Other employee benefits	756	1,307
Employee remuneration included in operating results	**16,458**	**16,032**
Net interest cost of defined benefit plans [26]	150	82
Total employee remuneration	**16,608**	**16,114**

Other employee benefits consist mainly of life insurance schemes and certain other insurance schemes providing medical coverage and other long-term and short-term disability benefits.

26. Pensions and other post-employment benefits

The Group's objective is to provide attractive and competitive post-employment benefits to employees, while at the same time ensuring that the various plans are appropriately financed and managing any potential impacts on the Group's long-term financial position. Most employees are covered by pension plans sponsored by Group companies. The nature of such plans varies according to legal regulations, fiscal requirements and market practice in the countries in which the employees are employed. Post-employment benefit plans are classified for IFRS Accounting Standards as 'defined contribution plans' if the Group pays fixed contributions into a separate fund or to a third-party financial institution and will have no further legal or constructive obligation to pay further contributions. All other plans are classified as 'defined benefit plans'.

Defined contribution plans

Defined contribution plans are funded through payments by employees and by the Group to funds administered by third parties. The Group's expenses for these plans were CHF 469 million (2022: CHF 452 million). No assets or liabilities are recognised in the Group's balance sheet in respect of such plans, apart from regular prepayments and accruals of the contributions withheld from employees' wages and salaries and of the Group's contributions. The Group's major defined contribution plan is the US Roche 401(k) Savings Plan.

Defined benefit plans

Plans are usually established as trusts independent of the Group and are funded by payments from Group companies and by employees. In some cases, notably for the major defined benefit plans in Germany, the plans are unfunded and the Group pays pensions to retired employees directly from its own financial resources. Plans are usually governed by a senior governing body, such as a Board of Trustees, which is typically composed of both employee and employer representatives. Funding of these plans is determined by local regulations using independent actuarial valuations. Separate independent actuarial valuations are prepared in accordance with the requirements of IAS 19 for use in the Group's financial statements. The Group's major pension plans are located in Switzerland, the US and Germany, which in total account for 88% of the Group's defined benefit obligation (2022: 87%).

Pension plans in Switzerland. Current pension arrangements for employees in Switzerland are made through plans governed by the Swiss Federal Occupational Old Age, Survivors and Disability Pension Act ('BVG'). The Group's pension plans are administered by separate legal foundations, which are funded by regular employee and company contributions. The final benefit is contribution based with certain minimum guarantees. Due to these minimum guarantees, the Swiss plans are treated as defined benefit plans for the purposes of these financial statements prepared in accordance with IFRS Accounting Standards, although they have many of the characteristics of defined contribution plans. Where there is an underfunding, this may be remedied by various measures such as increasing employee and company contributions, lowering the interest rate on retirement account balances, reducing prospective benefits and a suspension of the early withdrawal facility.

Pension plans in the US. The Group's major defined benefit plans in the US have been closed to new members since 2007. New employees in the US now join the defined contribution plan. The largest of the remaining defined benefit plans are funded pension plans together with smaller unfunded supplementary retirement plans. The benefits are based on the highest average annual rate of earnings during a specified period and length of employment. The plans are non-contributory for employees, with the Group making periodic contributions to the plans. Where there is an underfunding, this would normally be remedied by additional company contributions. In 2023 payments made by the Group were USD 98 million (2022: none).

Pension plans in Germany. The Group's major pension arrangements in Germany are governed by the Occupational Pensions Act ('BetrAVG'). These plans are unfunded and the Group pays pensions to retired employees directly from its own financial resources. These plans are non-contributory for employees. The benefits are based on final salary and length of employment. These plans have been closed to new members since 2007. They have been replaced by a new plan which is funded by regular employee and company contributions and administered through a contractual trust agreement. The final benefit of the unfunded plan is contribution based with a minimum guarantee. Due to this minimum guarantee, this plan is treated as a defined benefit plan for the purposes of these financial statements prepared in accordance with IFRS Accounting Standards, although it has many of the characteristics of a defined contribution plan.

Pension plans in the Rest of the World. These represent approximately 8% of the Group's defined benefit obligation (2022: 9%) and consist of a number of smaller plans in various countries. Of these the largest are the pension plans at Chugai, which are independently managed by Chugai, and the main pension plan in the United Kingdom. In 2023 no additional voluntary contributions were made by Chugai to its pension plans (2022: voluntary contributions of JPY 1.3 billion). The Chugai plans are fully described in Chugai's own financial statements prepared in accordance with IFRS Accounting Standards. The UK pension plan had been closed to new members since 2003 and was funded by regular employee and company contributions, with benefits based on final salary and length of employment. This plan has been closed to future accruals from July 2023. The plan had been replaced with a defined contribution plan.

Other post-employment benefit ('OPEB') plans. These represent approximately 4% of the Group's defined benefit obligation (2022: 4%) and consist of post-employment healthcare and life insurance schemes, mainly in the US. These plans are mainly unfunded and/or are contributory for employees, with the Group reimbursing retired employees directly from its own financial resources. The Group's major OPEB plans in the US have been closed to new members since 2011. Part of the costs of these plans is reimbursable under the Medicare Prescription Drug, Improvement, and Modernization Act of 2003. There is no statutory funding requirement for these plans. The Group is funding these plans to the extent that it is tax efficient. In 2023 contributions of USD 37 million were made by the Group to these plans (2022: contributions of USD 33 million). At 31 December 2023 the funding status under IFRS Accounting Standards was 73% (2022: 62%), including reimbursement rights, for the funded OPEB plans in the US.

Defined benefit plans: income statement in millions of CHF

			2023			2022
	Pension plans	Other post-employment benefit plans	Total expense	Pension plans	Other post-employment benefit plans	Total expense
Current service cost	447	9	456	618	12	630
Past service (income) cost	(3)	0	(3)	(19)	0	(19)
Settlement (gain) loss	0	0	0	0	0	0
Total operating expenses	**444**	**9**	**453**	**599**	**12**	**611**
Net interest cost of defined benefit plans	126	24	150	64	18	82
Total expense recognised in income statement	**570**	**33**	**603**	**663**	**30**	**693**

Funding status

The funding of the Group's various defined benefit plans is the responsibility of the respective senior governing body, such as a Board of Trustees, and the sponsoring employer, and is managed based on local statutory valuations, which follow the legislation and requirements of the respective jurisdiction in which the plan is established. Qualified independent actuaries carry out statutory actuarial valuations on a regular basis. The actuarial assumptions determining the funding status on the statutory basis are regularly assessed by the local senior governing body. The funding status is closely monitored at a corporate level. The unfunded plans are mainly those in the Group's German affiliates, where the fully reserved pension obligations are used for self-financing of the local affiliate's operations.

The funding status on an IFRS basis of the Group's funded defined benefit plans decreased to 110% (2022: 113%).

Reimbursement rights are linked to the post-employment medical plans in the US and represent the expected reimbursement of the medical expenditure provided under the Medicare Prescription Drug, Improvement, and Modernization Act of 2003.

Defined benefit plans: funding status in millions of CHF

	2023 Pension plans	2023 Other post-employment benefit plans	2023 Total	2022 Pension plans	2022 Other post-employment benefit plans	2022 Total
Funded plans						
– Fair value of plan assets	16,781	302	17,083	16,317	281	16,598
– Defined benefit obligation	(15,026)	(469)	(15,495)	(14,202)	(531)	(14,733)
Over (under) funding	**1,755**	**(167)**	**1,588**	**2,115**	**(250)**	**1,865**
Unfunded plans						
– Defined benefit obligation	(3,697)	(268)	(3,965)	(3,705)	(296)	(4,001)
Total funding status	**(1,942)**	**(435)**	**(2,377)**	**(1,590)**	**(546)**	**(2,136)**
Limit on asset recognition	(1,032)	0	(1,032)	(1,526)	0	(1,526)
Reimbursement rights	–	49	49	–	58	58
Net recognised asset (liability)	**(2,974)**	**(386)**	**(3,360)**	**(3,116)**	**(488)**	**(3,604)**
Reported in balance sheet						
– Defined benefit plan assets	970	49	1,019	899	58	957
– Defined benefit plan liabilities	(3,944)	(435)	(4,379)	(4,015)	(546)	(4,561)

Plan assets

The responsibility for the investment strategies of funded plans is with the respective senior governance body, such as the Board of Trustees. Asset-liability studies are performed regularly for all major pension plans. These studies examine the obligations from post-employment benefit plans and evaluate various investment strategies with respect to key financial measures such as expected returns, expected risks, expected contributions, and expected funded status of the plan in an interdependent way. The goal of an asset-liability study is to select an appropriate asset allocation for the funds held within the plan. The investment strategy is developed to optimise expected returns, to manage risks and to contain fluctuations in the statutory funded status. Asset-liability studies include strategies to match the cash flows of the assets with the plan obligations. The Group currently does not use longevity swaps to manage longevity risk.

Plan assets are managed using internal and external asset managers. The actual performance is continually monitored by the pension fund governance bodies as well as being closely monitored at a corporate level. In these financial statements the difference between the interest income and actual return on plan assets is a remeasurement that is recorded directly to other comprehensive income. In 2023 the actual return on plan assets was a gain of CHF 926 million (2022: loss of CHF 2,256 million), which excludes the actual return on reimbursement rights.

Defined benefit plans: fair value of plan assets and reimbursement rights in millions of CHF

	2023 Pension plans	2023 Other post-employment benefit plans	2023 Total	2022 Pension plans	2022 Other post-employment benefit plans	2022 Total
At 1 January	16,317	339	16,656	18,817	455	19,272
Interest income on plan assets and reimbursement rights	439	16	455	175	13	188
Remeasurements on plan assets and reimbursement rights	427	41	468	(2,364)	(131)	(2,495)
Currency translation effects	(341)	(83)	(424)	(140)	(32)	(172)
Employer contributions	519	37	556	429	32	461
Employee contributions	191	10	201	181	9	190
Benefits paid – funded plans	(767)	(7)	(774)	(776)	(5)	(781)
Benefits paid – settlements	0	0	0	0	0	0
Administration costs	(4)	(2)	(6)	(5)	(2)	(7)
At 31 December	**16,781**	**351**	**17,132**	**16,317**	**339**	**16,656**

The recognition of plan assets is limited to the present value of any economic benefits available from refunds from the plans or reductions in future contributions to the plans. There was a limit on asset recognition as a result of a surplus, based on current market assumptions, in certain Swiss pension plans that was not recognisable under IFRS Accounting Standards. The movement of the limit on asset recognition included CHF 527 million recorded in other comprehensive income within equity (2022: CHF 1,523 million) and CHF 33 million (2022: nil) as a reduction to interest income on plan assets in the income statement.

Defined benefit plans: limit on asset recognition in millions of CHF

	2023	2022
Limit on asset recognition		
At 1 January	(1,526)	(3)
Limitation of interest income relating to unrecognised plan assets	(33)	0
Changes to limit on asset recognition	527	(1,523)
At 31 December	**(1,032)**	**(1,526)**
Fair value of plan assets at 31 December		
Excluding limit on asset recognition	17,083	16,598
Limit on asset recognition	(1,032)	(1,526)
Including limit on asset recognition	16,051	15,072

Defined benefit plans: composition of plan assets in millions of CHF

	2023	2022
Equity securities	5,325	4,833
Debt securities	6,425	6,217
Property	2,623	2,799
Cash and money market instruments	353	312
Other investments	2,357	2,437
At 31 December	**17,083**	**16,598**

Assets are invested in a variety of different classes in order to maintain a balance between risk and return as follows:

- Equity and debt securities which mainly have quoted market prices (Level 1 fair value hierarchy).
- Property which is primarily in private and commercial property funds which mainly have other observable inputs (Level 2 fair value hierarchy).
- Cash and money market instruments which are mainly invested with financial institutions with a credit rating no lower than A.
- Other investments which mainly consist of alternatives, mortgages, commodities and insurance contracts. These are used for risk management purposes and mainly have other observable inputs (Level 2 fair value hierarchy) and unobservable inputs (Level 3 fair value hierarchy).

Included within the fair value of plan assets are the Group's shares and non-voting securities with a fair value of CHF 165 million (2022: CHF 147 million) and debt instruments issued by the Group with a fair value of CHF 15 million (2022: CHF 15 million).

Defined benefit obligation

The defined benefit obligation is calculated using the projected unit credit method. This reflects service rendered by employees to the dates of valuation and incorporates actuarial assumptions primarily regarding discount rates used in determining the present value of benefits, projected rates of remuneration growth and mortality rates. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds or government bonds in countries where there is not a deep market in corporate bonds. The corporate or government bonds are denominated in the currency in which the benefits will be paid, and have maturity terms approximating to the terms of the related pension obligation.

The Group's final salary-based defined benefit pension plans in the US, Germany and the United Kingdom have been closed to new participants. Active employees that had been members of these pension plans in the US and in Germany at the time these were closed to new participants continue to accrue benefits in the final salary-based defined benefit pension plans. The UK plan has been closed to future accruals in 2023. New employees in the US and UK now join the Group's defined contribution plans, while new employees in Germany join the contribution-based plan with a minimum guarantee. As a result, the proportion of the defined benefit obligation which relates to these closed plans is expected to decrease in the future. The defined benefit pension plans in Switzerland, where the final benefit is contribution based with a minimum guarantee, remain open to new employees.

Defined benefit plans: defined benefit obligation in millions of CHF

			2023			2022
	Pension plans	Other post-employment benefit plans	Total	Pension plans	Other post-employment benefit plans	Total
At 1 January	17,907	827	18,734	22,820	1,054	23,874
Current service cost	447	9	456	618	12	630
Interest cost	532	40	572	239	31	270
Remeasurements:						
– Demographic assumptions	(48)	0	(48)	266	0	266
– Financial assumptions	1,000	(11)	989	(5,385)	(252)	(5,637)
– Experience adjustments	215	3	218	488	12	500
Currency translation effects	(573)	(125)	(698)	(342)	(23)	(365)
Employee contributions	191	10	201	181	9	190
Benefits paid – funded plans	(767)	(7)	(774)	(776)	(5)	(781)
Benefits paid – unfunded plans	(178)	(9)	(187)	(183)	(11)	(194)
Benefits paid – settlements	0	0	0	0	0	0
Past service (income) cost	(3)	0	(3)	(19)	0	(19)
Settlement (gain) loss	0	0	0	0	0	0
At 31 December	**18,723**	**737**	**19,460**	**17,907**	**827**	**18,734**
Composition of plans						
Active members	9,744	182	9,926	9,149	206	9,355
Deferred vested members	1,364	4	1,368	1,320	4	1,324
Retired members	7,615	551	8,166	7,438	617	8,055
At 31 December	**18,723**	**737**	**19,460**	**17,907**	**827**	**18,734**
Plans by geography						
Switzerland	10,295	–	10,295	9,304	–	9,304
United States	3,239	711	3,950	3,467	796	4,263
Germany	3,669	–	3,669	3,517	–	3,517
Rest of the World	1,520	26	1,546	1,619	31	1,650
At 31 December	**18,723**	**737**	**19,460**	**17,907**	**827**	**18,734**
Duration in years	12.3	9.7	12.2	12.6	10.0	12.4

Actuarial assumptions

The actuarial assumptions used in these financial statements are based on the requirements set out in IAS 19 'Employee Benefits'. They 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 local management, based on advice from actuaries, and are subject to approval by corporate management and the Group's actuaries. Actuarial assumptions consist of demographic assumptions on matters such as mortality and employee turnover, and financial assumptions on matters such as interest rates, salary and benefit levels, inflation rates and costs of medical benefits. The actuarial assumptions vary based upon local economic and social conditions. The actuarial assumptions used in the various statutory valuations may differ from these based on local legal and regulatory requirements.

Demographic assumptions. The most significant demographic assumptions relate to mortality rates. The Group's actuaries use mortality tables which take into account historic patterns and expected changes, such as further increases in longevity. Rates of employee turnover, disability and early retirement are based on historical behaviour. The average life expectancy assumed now for an individual at the age of 65 is as follows:

Defined benefit plans: average life expectancy at the age of 65 for major schemes in years

			Male		Female
Country	Mortality table	2023	2022	2023	2022
Switzerland	BVG 2020 projected with CMI model	21.8	21.7	23.5	23.5
United States	Pri-2012 projected with MP-2021	22.0	21.9	23.4	23.3
Germany	Heubeck tables 2018 G projected with CMI model	19.8	19.6	23.0	23.0

The mortality assumptions used for the pension plans in Switzerland were based on BVG 2020 applying the Continuous Mortality Investigation ('CMI') model. A long-term rate of 1.25% (2022: 1.25%) was used for longevity improvements.

The Group used as mortality assumptions for the pension plans in Germany Heubeck tables 2018 G applying the CMI model with a long-term rate of 1.25% for longevity improvements (2022: 1.25%).

Financial assumptions. These are based on market expectations for the period over which the obligations are to be settled. The assumptions used in the actuarial valuations are shown below.

Defined benefit plans: financial actuarial assumptions

		2023		2022
	Weighted average	Range	Weighted average	Range
Discount rates	2.65%	1.40%–5.60%	3.20%	1.23%–5.30%
Expected rates of salary increases	2.42%	0.00%–3.70%	2.69%	0.00%–4.25%
Expected rates of pension increases	0.61%	0.00%–3.00%	0.71%	0.00%–3.00%
Expected inflation rates	2.16%	0.00%–3.00%	2.26%	0.00%–3.10%
Immediate medical cost trend rate	5.52%	5.50%–6.22%	5.69%	5.49%–5.70%
Ultimate medical cost trend rate (in 2044)	4.00%	4.00%–4.00%	4.00%	4.00%–4.00%

Discount rates are determined with reference to interest rates on high-quality corporate bonds or government bonds in countries where there is not a deep market in corporate bonds. Expected rates of salary increases are based on expected inflation rates with an adjustment to reflect the Group's latest expectation of long-term real salary increases taking into account expected inflation rates, amongst other factors. Expected rates of pension increases are generally linked to the expected inflation rate or the funding status of the plan. Expected inflation rates are derived by looking at the level of inflation implied by the financial markets in conjunction with the economists' price inflation forecasts, historic price inflation as well as other economic variables and circumstances. Medical cost trend rates take into account the benefits set out in the plan terms and expected future changes in medical costs. Since the Group's major post-employment medical plans are for US employees, these rates are driven by developments in the US.

Sensitivity analysis. The measurement of the net defined benefit obligation is particularly sensitive to changes in the discount rate, inflation rate, expected mortality and medical cost trend rate assumptions. The following table summarises the impact of a change in those assumptions on the present value of the defined benefit obligation.

Defined benefit plans: sensitivity of defined benefit obligation to actuarial assumptions in millions of CHF

	2023	2022
Increase (decrease) in defined benefit obligation		
Life expectancy		
– 1 year increase	482	464
Discount rates		
– 0.25% increase	(549)	(550)
– 0.25% decrease	583	567
Expected inflation rates		
– 0.25% increase	136	122
– 0.25% decrease	(131)	(168)
Immediate medical cost trend rate		
– 1.00% increase	60	72
– 1.00% decrease	(51)	(61)

Each sensitivity analysis considers the change in one assumption at a time leaving the other assumptions unchanged. This approach shows the isolated effect of changing one individual assumption but does not take into account that some assumptions are related. The method used to carry out the sensitivity analysis is the same as in the prior year.

Cash flows

The Group incurred cash flows from its defined benefit plans as shown in the table below.

Defined benefit plans: cash flows in millions of CHF

	2023	2022
Employer contributions, net of reimbursements – funded plans	(556)	(461)
Benefits paid – unfunded plans	(187)	(194)
Total cash inflows (outflows)	**(743)**	**(655)**

Based on the most recent actuarial valuations, the Group expects that employer contributions for funded plans in 2024 will be approximately CHF 426 million, which includes an estimate of CHF 10 million of additional contributions related to the UK pension plan. Benefits paid for unfunded plans in 2024 are estimated to be approximately CHF 216 million, which mostly relate to the German defined benefit plans.

27. Equity compensation plans

The Group operates several equity compensation plans, including separate plans at Chugai. IFRS 2 'Share-based Payment' requires that the fair value of all equity compensation plan awards granted to employees be estimated at grant date and recorded as an expense over the vesting period.

Expenses for equity compensation plans in millions of CHF

	2023	2022
Cost of sales	86	86
Research and development	385	330
Selling, general and administration	359	322
Total operating expenses	**830**	**738**
Equity compensation plans		
Roche Stock-settled Stock Appreciation Rights	175	150
Roche Restricted Stock Unit Plan	602	538
Roche Connect	42	38
Roche Option Plan	1	1
Executive stock compensation	8	8
Chugai plans	2	3
Total operating expenses	**830**	**738**
Of which		
– Equity-settled	830	738
– Cash-settled	–	–

Effective 1 January 2023, the Group has made certain presentational and cost allocation changes to the income statement (see Note 34). The comparative information for 2022 has been restated accordingly.

Cash inflows (outflows) from equity compensation plans in millions of CHF

	2023	2022
Roche Option Plan exercises	9	13
Chugai plans' exercises	2	4
Roche Connect costs	(42)	(38)
Transactions in own equity	(1,113)	(1,236)
Total cash inflows (outflows) from equity-settled equity compensation plans, net of transactions in own equity	**(1,144)**	**(1,257)**

The net cash outflows from transactions in own equity mainly arise from sales and purchases of equity instruments which are held for the Group's potential conversion obligations that may arise from the Group's equity compensation plans (see Note 22).

Equity compensation plans

Roche Stock-settled Stock Appreciation Rights. The Group issues Stock-settled Stock Appreciation Rights (S-SARs) to certain directors, management and employees selected at the discretion of the Group. The S-SARs give employees the right to receive non-voting equity securities reflecting the value of any appreciation in the market price of the non-voting equity securities between the grant date and the exercise date. The Roche S-SAR Plan was renewed effective 1 January 2023 and 150 million S-SARs will be available for issuance over a ten-year period from 2023 to 2032. The rights, which are non-tradable equity-settled awards, have a ten-year duration and vest on a phased basis over four years. Rights granted before 2019 have a seven-year duration and vested on a phased basis over three years.

Roche S-SARs – movement in number of rights outstanding

	2023 Number of rights (thousands)	2023 Weighted average exercise price (CHF)	2022 Number of rights (thousands)	2022 Weighted average exercise price (CHF)
Outstanding at 1 January	29,865	294.14	28,535	277.00
Granted	9,979	261.21	6,308	358.53
Forfeited	(1,859)	308.27	(1,147)	318.63
Exercised	(2,102)	248.14	(3,807)	265.18
Expired	(41)	251.50	(24)	258.44
Outstanding at 31 December	**35,842**	**286.99**	**29,865**	**294.14**
– of which exercisable	17,629	278.55	14,270	261.91

Roche S-SARs – terms of rights outstanding at 31 December 2023

Year of grant	Rights outstanding: Number outstanding (thousands)	Rights outstanding: Weighted average remaining contractual life (years)	Rights outstanding: Weighted average exercise price (CHF)	Rights exercisable: Number exercisable (thousands)	Rights exercisable: Weighted average exercise price (CHF)
2017	2,469	0.26	251.49	2,469	251.49
2018	3,608	1.26	221.32	3,608	221.32
2019	3,769	5.27	272.27	3,769	272.27
2020	5,194	6.27	308.26	3,608	308.27
2021	5,772	7.27	308.15	2,703	308.32
2022	5,500	8.27	358.45	1,386	358.36
2023	9,530	9.26	261.20	86	261.80
Total	**35,842**	**6.51**	**286.99**	**17,629**	**278.55**

Roche Restricted Stock Unit Plan. The Group issues Restricted Stock Units (RSUs) awards to certain directors, management and employees selected at the discretion of the Group. The RSUs, which are non-tradable, represent the right to receive non-voting equity securities. RSUs vest on a phased basis over four years, subject to performance conditions, if any. There are currently no performance conditions on outstanding RSUs at 31 December 2023. The Roche RSU Plan was renewed effective 1 January 2023 and 30 million non-voting equity securities will be available for issuance over a ten-year period from 2023 to 2032. The Roche RSU Plan also includes a value adjustment which will be an amount equivalent to the sum of shareholder distributions made by the Group during the vesting period attributable to the number of non-voting equity securities for which an individual award has been granted.

Roche RSUs – movement in number of awards outstanding

	2023 Number of awards (thousands)	2022 Number of awards (thousands)
Outstanding at 1 January	3,812	3,613
Granted	2,775	1,943
Forfeited	(351)	(353)
Transferred to participants	(1,811)	(1,391)
Outstanding at 31 December	**4,425**	**3,812**
– of which vested and transferable	1	1

Roche Connect. This programme enables all employees worldwide, except for those in the US and certain other countries, to make regular deductions from their salaries to purchase non-voting equity securities. It is administered by independent third parties. The Group contributes to the programme, which allows the employees to purchase non-voting equity securities at a discount (usually 20%). The administrators purchase the necessary non-voting equity securities directly from the market. At 31 December 2023 the administrators held 4.2 million non-voting equity securities (2022: 3.7 million). In 2023 the cost of the plan was CHF 42 million (2022: CHF 38 million).

Roche Option Plan. This programme is used in countries where S-SARs are not used. Awards under this plan give employees the right to purchase non-voting equity securities at an exercise price specified at the grant date. The options, which are non-tradable equity-settled awards, have a ten-year duration and vest on a phased basis over four years. Options granted before 2019 have a seven-year duration and vested on a phased basis over three years.

Roche Option Plan – movement in number of options outstanding

	Number of options (thousands)	2023 Weighted average exercise price (CHF)	Number of options (thousands)	2022 Weighted average exercise price (CHF)
Outstanding at 1 January	259	266.66	294	258.47
Granted	22	261.19	20	359.29
Forfeited	(8)	299.98	(3)	316.70
Exercised	(39)	251.81	(52)	252.59
Expired	(1)	251.50	0	256.10
Outstanding at 31 December	**233**	**267.54**	**259**	**266.66**
– of which exercisable	183	258.34	191	250.32

Roche Option Plan – terms of options outstanding at 31 December 2023

			Options outstanding		Options exercisable
Year of grant	Number outstanding (thousands)	Weighted average remaining contractual life (years)	Weighted average exercise price (CHF)	Number exercisable (thousands)	Weighted average exercise price (CHF)
2017	36	0.28	250.95	36	250.95
2018	63	1.28	223.05	63	223.05
2019	53	5.25	271.65	52	271.65
2020	20	6.25	308.01	15	308.01
2021	23	7.29	311.98	12	311.85
2022	16	8.25	359.21	5	359.26
2023	22	9.26	261.18	0	n/a
Total	**233**	**4.26**	**267.54**	**183**	**258.34**

The weighted average share price of Roche non-voting equity securities during the year was CHF 265.94 (2022: CHF 333.29).

Executive stock compensation. The Chairman of the Board of Directors until April 2023, Dr Franz, and the Chief Executive Officer will be granted Bonus Stock Awards in lieu of their cash-settled bonus for the financial year 2023. These are subject to approval by the 2024 Annual General Meeting in March 2024 and will be issued in March 2024. From April 2023, the new Chairman of the Board of Directors, Dr Schwan, received part of his base salary in the form of shares blocked for ten years. The number of awards and fair value per award are calculated at the grant date.

Fair value measurement

The inputs used in the measurement of the fair values at grant date of the equity compensation plans were as follows:

Fair value measurement in 2023

	Roche Stock-settled Stock Appreciation Rights	Roche Restricted Stock Unit Plan	Roche Option Plan
Vesting period	Progressively over 4 years	Progressively over 4 years	Progressively over 4 years
Contractual life	10 years	n/a	10 years
Number granted during year (thousands)	9,979	2,775	22
Weighted average fair value (CHF)	21	261	21
Model used	Binomial	Market price[a]	Binomial
Inputs to option pricing model			
– Share price at grant date (CHF)	261	261	261
– Exercise price (CHF)	261	–	261
– Expected volatility[b]	19.58%	n/a	19.58%
– Expected dividend yield	7.00%	n/a	7.00%
– Early exercise factor[c]	1.348	n/a	1.348
– Expected exit rate	8.40%	n/a	8.40%

a) The fair value of the Roche RSUs is equivalent to the share price on the date of grant.
b) Volatility was determined primarily by reference to historically observed prices of the underlying equity. Risk-free interest rates are derived from zero coupon swap rates at the grant date taken from Datastream.
c) The early exercise factor describes the ratio between the expected market price at the exercise date and the exercise price at which early exercises can be expected, based on historically observed behaviour.

28. Leases

The Group as a lessee

The Group enters into leasing transaction 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:
- Property – offices and apartments. These are a small number of leases, but represent most of the value.
- Cars – mostly for sales representatives.
- Office equipment – photocopiers and similar.

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 CHF

	Land	Buildings and land improvements	Machinery and equipment	Total
Year ended 31 December 2022				
At 1 January 2022	49	1,040	160	1,249
Additions	40	179	119	338
Disposals	0	(35)	(12)	(47)
Reclassification to assets held for sale [6]	0	0	0	0
Depreciation charge	(3)	(248)	(90)	(341)
Impairment reversal (charge)	0	(5)	0	(5)
Other	1	(28)	0	(27)
Currency translation effects	(2)	(23)	(9)	(34)
At 31 December 2022	**85**	**880**	**168**	**1,133**
Cost	101	1,543	325	1,969
Accumulated depreciation and impairment	(16)	(663)	(157)	(836)
Net book value	**85**	**880**	**168**	**1,133**
Year ended 31 December 2023				
At 1 January 2023	85	880	168	1,133
Additions	2	777	120	899
Disposals	0	(18)	(20)	(38)
Reclassification to assets held for sale [6]	0	0	(8)	(8)
Depreciation charge	(4)	(231)	(90)	(325)
Impairment reversal (charge)	0	(319)	0	(319)
Other	0	(21)	0	(21)
Currency translation effects	(7)	(86)	(13)	(106)
At 31 December 2023	**76**	**982**	**157**	**1,215**
Cost	94	1,953	314	2,361
Accumulated depreciation and impairment	(18)	(971)	(157)	(1,146)
Net book value	**76**	**982**	**157**	**1,215**

Classification of impairment reversal (charge) of right-of-use assets in millions of CHF

	2023	2022
Cost of sales	(3)	0
Research and development	(23)	0
Selling, general and administration	(293)	(5)
Total impairment reversal (charge)	**(319)**	**(5)**

Effective 1 January 2023, the Group has made certain presentational and cost allocation changes to the income statement (see Note 34). The comparative information for 2022 has been restated accordingly.

Impairment charges for right-of-use assets were mainly related to global restructuring plans (see Note 7). Included in the 2023 impairment charge was a write-off of CHF 287 million for right-of-use assets recorded by Foundation Medicine in relation to its leased buildings in Boston and San Diego, US. The recoverable amount of CHF 224 million was determined using fair value less costs of disposal calculations. These valuations were classified as a Level 3 fair value in the fair value hierarchy. A post-tax discount rate of 3.5% was applied to the projected post-tax cash flows for the remaining contractual period of Foundation Medicine's leases of approximately 8 to 15 years.

Liabilities reported for the Group's leases are shown in the table below.

Leases: movements in carrying value of recognised liabilities in millions of CHF

	2023	2022
At 1 January	1,193	1,354
Increase from new lease arrangements	897	335
Repayment of lease liabilities	(360)	(419)
Disposals	(43)	(57)
Reclassification to liabilities directly associated with assets held for sale [6]	(8)	0
Interest expense on lease liabilities [4]	23	16
Other	0	(2)
Currency translation effects	(129)	(34)
At 31 December	**1,573**	**1,193**
Non-current lease liabilities [18]	1,282	891
Current lease liabilities [19]	291	302
Total lease liabilities	**1,573**	**1,193**

The maturity analysis of lease liabilities is given in Note 31 in the 'Liquidity risk' section.

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 recognised on a straight-line basis. These mainly include short-term property leases for employee apartments. The amount reported in 2023 was CHF 35 million (2022: CHF 36 million). Expenses for leases of low-value assets are recognised on a straight-line basis. These mainly include certain office equipment. The amount reported in 2023 was CHF 11 million (2022: CHF 13 million).

Expenses for variable lease payments not included in the measurement of lease liabilities was CHF 36 million in 2023 (2022: CHF 38 million). In 2023 income from subleasing right-of-use assets was CHF 6 million (2022: CHF 3 million). In 2023 and 2022 the Group did not enter into any material 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 CHF

	2023	2022
Included in cash flows from operating activities	(81)	(87)
Included in cash flows from financing activities	(362)	(422)
Total lease payments	**(443)**	**(509)**

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.

Leases committed and not yet commenced. In November 2021 Genentech entered into a binding lease agreement with a third party for the lease of laboratory and office space in a building in South San Francisco, US, which is to be constructed by the landlord at the location currently known as '751 Gateway'. According to the agreement Genentech is committed to lease the building for seven years. The commencement date of the lease is currently expected to be in the first half of 2024. The committed future cash outflows related to this agreement are estimated to be approximately USD 117 million based on current assumptions.

The Group as a lessor

In the Diagnostics Division the Group enters into certain contracts which include placement of diagnostics instruments, supply of reagents and other consumables, and servicing arrangements. Depending upon the term of the agreement, the instrument placement may result in either a finance lease or an operating lease. The Group performs a thorough customer assessment before new leasing agreements are signed. Usually the Group also retains rights to terminate or modify contracts if certain conditions are not met.

Finance leases. Certain assets, mainly diagnostics instruments, are leased to third parties through finance lease arrangements. Such assets are reported as receivables at an amount equal to the net investment in the lease. Income from finance leases is recognised as sales at amounts that represent the fair value of the instrument, which approximates the present value of the minimum lease payments under the arrangement. Finance income for finance lease arrangements longer than twelve months is deferred and subsequently recognised based on a pattern that approximates the use of the effective interest method and recorded in other revenue.

The following amounts were recorded as income in respect of finance leases.

Finance leases: selected items of income in millions of CHF

	2023	2022
Selling profit as the difference between sales and cost of sales	4	7
Finance income on the net investment in the lease	6	6

Currently the Group does not have any income from the variable lease payments of finance leases. The carrying amount of the net investment in finance leases reported as receivables was CHF 137 million (2022: CHF 144 million).

Finance leases: future minimum lease receipts under non-cancellable leases in millions of CHF

	Gross investment in lease 2023	2022	Present value of minimum lease receipts 2023	2022
Within one year	56	58	51	52
Between one and two years	36	39	33	37
Between two and three years	25	29	23	26
Between three and four years	17	17	16	16
Between four and five years	10	9	9	9
More than five years	6	5	5	5
Total	**150**	**157**	**137**	**145**
Unearned finance income	(13)	(13)	n/a	n/a
Unguaranteed residual value	n/a	n/a	0	(1)
Net investment in lease	**137**	**144**	**137**	**144**

Operating leases. Certain assets, mainly diagnostics instruments, are leased to third parties through operating lease arrangements. Income from operating leases is recognised as sales on a straight-line basis over the lease term or, when lease revenue is entirely based on variable lease payments and subject to subsequent reagent sales, as the performance obligations for reagents are satisfied.

Lease income in 2023 was CHF 707 million (2022: CHF 787 million) and was included in sales. Of this CHF 485 million (2022: CHF 588 million) relates to variable lease payments not depending upon an index or rate.

Leased assets are reported within property, plant and equipment, as shown in the tables below.

Machinery and equipment subject to operating leases: movements in carrying value of assets in millions of CHF

	Leased out	Own use	2023 Total	Leased out	Own use	2022 Total
At 1 January						
Cost	5,717	16,777	22,494	5,641	16,357	21,998
Accumulated depreciation and impairment	(4,163)	(11,101)	(15,264)	(4,014)	(10,677)	(14,691)
Net book value	**1,554**	**5,676**	**7,230**	**1,627**	**5,680**	**7,307**
Year ended 31 December						
At 1 January	1,554	5,676	7,230	1,627	5,680	7,307
Additions	824	132	956	711	235	946
Disposals	(34)	(41)	(75)	(43)	(41)	(84)
Transfers	7	605	612	3	1,124	1,127
Reclassification to assets held for sale	0	(184)	(184)	0	0	0
Depreciation charge	(636)	(958)	(1,594)	(662)	(1,034)	(1,696)
Impairment reversal (charge)	(2)	(103)	(105)	0	(35)	(35)
Other	(10)	(52)	(62)	1	(60)	(59)
Currency translation effects	(130)	(375)	(505)	(83)	(193)	(276)
At 31 December	**1,573**	**4,700**	**6,273**	**1,554**	**5,676**	**7,230**
Cost	5,555	14,358	19,913	5,717	16,777	22,494
Accumulated depreciation and impairment	(3,982)	(9,658)	(13,640)	(4,163)	(11,101)	(15,264)
Net book value	**1,573**	**4,700**	**6,273**	**1,554**	**5,676**	**7,230**

Buildings and land improvements subject to operating leases: movements in carrying value of assets in millions of CHF

	2023 Leased out	2023 Own use	2023 Total	2022 Leased out	2022 Own use	2022 Total
At 1 January						
Cost	0	19,806	19,806	0	18,175	18,175
Accumulated depreciation and impairment	0	(8,925)	(8,925)	0	(8,289)	(8,289)
Net book value	**0**	**10,881**	**10,881**	**0**	**9,886**	**9,886**
Year ended 31 December						
At 1 January	0	10,881	10,881	0	9,886	9,886
Additions	0	6	6	0	125	125
Disposals	0	(13)	(13)	0	(6)	(6)
Transfers	25	712	737	0	1,925	1,925
Reclassification to assets held for sale	0	(433)	(433)	0	0	0
Depreciation charge	(1)	(828)	(829)	0	(869)	(869)
Impairment reversal (charge)	0	(207)	(207)	0	0	0
Other	0	15	15	0	(2)	(2)
Currency translation effects	(1)	(628)	(629)	0	(178)	(178)
At 31 December	**23**	**9,505**	**9,528**	**0**	**10,881**	**10,881**
Cost	25	17,908	17,933	0	19,806	19,806
Accumulated depreciation and impairment	(2)	(8,403)	(8,405)	0	(8,925)	(8,925)
Net book value	**23**	**9,505**	**9,528**	**0**	**10,881**	**10,881**

The undiscounted amounts expected to be received from non-cancellable operating leases are shown in the table below.

Operating leases: future minimum lease receipts under non-cancellable leases in millions of CHF

	2023	2022
Within one year	191	172
Between one and two years	148	131
Between two and three years	107	99
Between three and four years	76	57
Between four and five years	52	28
More than five years	39	12
Total minimum receipts	**613**	**499**

29. Earnings per share and non-voting equity security

Basic earnings per share and non-voting equity security

	2023	2022
Net income attributable to Roche shareholders (CHF millions)	**11,498**	**12,421**
Weighted average number of outstanding shares (millions)	107	112
Number of outstanding non-voting equity securities (millions) [22]	703	703
Weighted average number of own shares and non-voting equity securities held (millions)	(11)	(15)
Weighted average number of outstanding shares and non-voting equity securities used to calculate basic earnings per share (millions)	**799**	**800**
Basic earnings per share and non-voting equity security (CHF)	**14.40**	**15.52**

Diluted earnings per share and non-voting equity security

	2023	2022
Net income attributable to Roche shareholders (CHF millions)	11,498	12,421
Increase in non-controlling interests' share of Group net income, assuming all outstanding Chugai stock options exercised (CHF millions)	0	(1)
Net income used to calculate diluted earnings per share (CHF millions)	**11,498**	**12,420**
Weighted average number of outstanding shares and non-voting equity securities (millions)	799	800
Adjustment for assumed exercise of equity compensation plans, where dilutive (millions)	5	8
Weighted average number of outstanding shares and non-voting equity securities used to calculate diluted earnings per share (millions)	**804**	**808**
Diluted earnings per share and non-voting equity security (CHF)	**14.31**	**15.37**

30. Statement of cash flows

Cash flows from operating activities

Cash flows from operating activities arise from the Group's primary activities in the Pharmaceuticals and Diagnostics Divisions. These are calculated using the indirect method by adjusting the Group's operating profit for any operating income and expenses that are not cash flows (for example depreciation, amortisation and impairment) in order to derive the cash generated from operations. This and other operating cash flows are shown in the statement of cash flows. Operating cash flows also include income taxes paid on all activities.

Cash generated from operations in millions of CHF

	2023	2022
Net income	12,358	13,531
Add back non-operating (income) expense		
– Financing costs [4]	996	665
– Other financial (income) expense [4]	320	484
– Income taxes [5]	1,721	2,796
Operating profit	**15,395**	**17,476**
Depreciation of property, plant and equipment [8]	2,423	2,565
Depreciation of right-of-use assets [28]	325	341
Amortisation of intangible assets [10]	716	938
Impairment of goodwill [9]	591	0
Impairment of intangible assets [10]	608	2,837
Impairment (reversal) of property, plant and equipment [8]	350	123
Impairment (reversal) of right-of-use assets [28]	319	5
Operating (income) expense for defined benefit plans [26]	453	611
Operating expense for equity-settled equity compensation plans [27]	830	738
Net (income) expense for provisions	572	514
Bad debt (reversal) expense	6	3
Inventory write-downs	643	509
Net (gain) loss on disposal of products	(558)	(612)
Other adjustments	(56)	(18)
Cash generated from operations	**22,617**	**26,030**

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, and from the acquisition and divestment of subsidiaries, associates and businesses. 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. These cash flows indicate the Group's net reinvestment in its operating assets and the cash flow effects of business combinations and divestments, as well as the cash generated by the Group's other investments.

Interest received (paid) and dividends received on marketable securities and other investments in millions of CHF

	2023	2022
Interest received (paid)	168	32
Dividends received	0	0
Total	**168**	**32**

Cash flows from financing activities

Cash flows from financing activities are primarily the proceeds from the issuance and repayment of the Group's equity and debt instruments. They also include interest payments and dividend payments on these instruments. Cash flows from short-term financing are also included. These cash flows indicate the Group's transactions with the providers of its equity and debt financing. Cash flows from lease payments are also included within financing activities. Cash flows from short-term borrowings are shown as a net movement, as these consist of a large number of transactions with short maturity.

Dividends paid in millions of CHF

	2023	2022
Dividends to Roche shareholders	(7,590)	(7,446)
Dividends to non-controlling shareholders		
– Chugai	(327)	(390)
– Other non-controlling interests	(7)	(16)
Increase (decrease) in dividends payable	(1)	0
Dividend withholding tax	(1)	20
Total	**(7,926)**	**(7,832)**

Liabilities arising from financing activities

Movements in carrying value of recognised assets (liabilities) in millions of CHF

	Debt [21]	Interest payable [19]	Principal portion of lease liabilities	Derivative financial instruments, net [16, 19, 31]	Cash collateral receivables (payables), net [16, 19, 31]	Total
Year ended 31 December 2022						
At 1 January 2022	(31,198)	(102)	(1,353)	(73)	(17)	(32,743)
Cash flows						
– Outflows (inflows)	5,698	557	405	327	199	7,186
Non-cash changes						
– Financing costs	(4)	(588)	(16)	0	0	(608)
– Business combinations	0	0	0	0	0	0
– Asset acquisitions	0	0	0	0	0	0
– Fair value and other	136	(8)	(262)	(735)	0	(869)
– Foreign exchange rates	17	1	35	22	(2)	73
At 31 December 2022	**(25,351)**	**(140)**	**(1,191)**	**(459)**	**180**	**(26,961)**
Year ended 31 December 2023						
At 1 January 2023	(25,351)	(140)	(1,191)	(459)	180	(26,961)
Cash flows						
– Outflows (inflows)	(5,785)	770	339	(32)	(123)	(4,831)
Non-cash changes						
– Financing costs	(8)	(797)	(23)	0	0	(828)
– Business combinations	0	0	0	0	0	0
– Asset acquisitions	0	0	0	0	0	0
– Fair value and other	(88)	(32)	(824)	182	0	(762)
– Foreign exchange rates	2,023	12	129	37	(7)	2,194
At 31 December 2023	**(29,209)**	**(187)**	**(1,570)**	**(272)**	**50**	**(31,188)**

Significant non-cash transactions

In 2023 there were no significant non-cash transactions (2022: none) except for the leasing transactions where the Group is a lessee (see Note 28).

31. Risk management

Group risk management

Risk management is a fundamental element of the Group's business practice on all levels and encompasses different types of risks. At Group level, risk management is an integral part of the long-term forecasting and controlling processes. Material risks are monitored and regularly discussed with the Corporate Executive Committee and the Audit Committee of the Board of Directors.

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 reviewed by the boards of directors of Roche and Chugai as appropriate to their areas of statutory responsibility. These policies cover credit risk, liquidity risk and market risk. The policies provide guidance on risk limits, types of authorised financial instruments and monitoring procedures. As a general principle, the policies prohibit the use of derivative financial instruments for speculative trading purposes. Policy implementation and day-to-day risk management are carried out by the relevant treasury functions and regular reporting on these risks is performed by the relevant accounting and controlling functions within Roche and Chugai.

Credit risk

Credit risk arises from the possibility that counterparties to transactions may default on their obligations, causing financial losses for the Group. The objective of managing counterparty credit risk is to prevent losses of liquid funds deposited with or invested in such counterparties. The maximum exposure to credit risk resulting from financial activities, without considering netting agreements and without taking account of any collateral held or other credit enhancements, is equal to the carrying value of the Group's financial assets.

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 (e.g. overdue status) that are based on data developed internally and for certain financial assets are also obtained from external sources. A major part of the Group's receivables which are past due more than 90 days relate to public customers. Risk of default of public customers is considered low. The Group has reasonable and supportable information to demonstrate that a more lagging default criterion is more appropriate for this particular customer segment.

Accounts receivable. At 31 December 2023 the Group had trade receivables of CHF 12.1 billion (2022: CHF 12.6 billion). These are subject to a policy of active credit risk management which focuses on the assessment of country risk, credit availability, ongoing credit evaluation and account monitoring procedures. The objective of trade receivables management is to maximise the collection of unpaid amounts.

The Group uses an allowance matrix to estimate the allowance for doubtful accounts for all trade receivables. 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.

Customer credit risk exposure based on accounts receivable days overdue in millions of CHF

	Total	Current	Overdue 1–3 months	Overdue 3–12 months	Overdue more than 1 year	Credit impaired
At 31 December 2023						
Gross carrying amount	11,461	9,594	748	428	656	35
Group's expected credit loss rate	4%	0%	1%	7%	52%	100%
Allowance for doubtful accounts	(440)	(24)	(11)	(28)	(342)	(35)
At 31 December 2022						
Gross carrying amount	12,096	10,373	708	369	604	42
Group's expected credit loss rate	4%	0%	1%	8%	64%	100%
Allowance for doubtful accounts	(490)	(27)	(6)	(31)	(384)	(42)

At 31 December 2023 the Group's combined trade receivables balance with three US national wholesale distributors, McKesson Corp., Cencora, Inc. (formerly AmerisourceBergen Corp.) and Cardinal Health, Inc., was equivalent to CHF 3.7 billion representing 31% of the Group's consolidated trade receivables (2022: CHF 3.1 billion representing 25%). There is no other significant concentration of counterparty credit risk due to the Group's large number of customers and their wide geographical spread. Risk limits and exposures are continuously monitored by country and by the nature of counterparties. The Group obtains credit insurance and similar enhancements when appropriate to protect the collection of trade receivables. At 31 December 2023 no collateral was considered to measure expected credit losses for trade receivables (2022: none).

The nature and geographic location of counterparties to accounts receivable that are not overdue or impaired are shown in the table below. These include the balances with US national wholesalers described above.

Accounts receivable (not overdue), net of allowances for doubtful accounts and other allowances: nature and geographical location of counterparties in millions of CHF

				2023				2022
Regions	Total	Public	Whole-salers/ distributors	Private	Total	Public	Whole-salers/ distributors	Private
Switzerland	379	135	142	102	291	69	167	55
Europe	1,395	513	402	480	1,609	594	376	639
North America	4,188	81	3,663	444	3,904	130	3,272	502
Latin America	609	131	231	247	584	122	233	229
Japan	1,198	5	1,183	10	2,236	1,091	1,135	10
Asia, Australia and Oceania	1,241	220	921	100	1,221	212	888	121
Rest of the World	560	137	228	195	501	125	199	177
Total	**9,570**	**1,222**	**6,770**	**1,578**	**10,346**	**2,343**	**6,270**	**1,733**

Cash and marketable securities (excluding equity securities). At 31 December 2023 the Group had cash and marketable securities (excluding equity securities) of CHF 10.5 billion (2022: CHF 9.8 billion). These are subject to a policy of restricting exposures to high-quality counterparties and setting defined limits for individual counterparties. These limits and counterparty credit ratings are reviewed regularly.

Cash and cash equivalents are held with banks and financial institutions, which are predominantly rated as investment grade (94% in 2023 and 95% in 2022), based on Moody's and Standard & Poor's ratings. Cash and short-term time deposits are subject to rules which limit the Group's exposure to individual financial institutions.

Impairment on cash and cash equivalents is measured on a 12-month expected credit losses ('ECL') basis with a reference to external credit ratings of the counterparties. This reflects the short maturities of the exposures in cash and cash equivalents. The Group considers that its cash and cash equivalents have low credit risk based on these external credit ratings.

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 Standard & Poor's.

The credit risk of the counterparties with external ratings below investment grade or with no rating is closely monitored and reviewed on an individual basis.

Rating analysis of cash and marketable securities (excluding equity securities) – market values in millions of CHF

			2023			2022
	Total	Fair value through OCI (12-month ECL)	Amortised costs (12-month ECL)	Total	Fair value through OCI (12-month ECL)	Amortised costs (12-month ECL)
AAA range	1,254	954	300	2,123	2,123	0
AA range	910	134	776	1,021	121	900
A range	7,604	1,435	6,169	5,946	1,754	4,192
BBB range	344	342	2	400	390	10
Total investment grade	**10,112**	**2,865**	**7,247**	**9,490**	**4,388**	**5,102**
Below BBB range (below investment grade)	64	5	59	77	5	72
Unrated	333	1	332	199	1	198
Total gross carrying amounts	**10,509**	**2,871**	**7,638**	**9,766**	**4,394**	**5,372**
Loss allowance [a]	**1**	**0**	**1**	**1**	**0**	**1**

a) The loss allowance related to fair value through OCI does not affect the carrying amount of marketable securities (excluding equity securities) but is booked against corresponding OCI reserve instead.

Debt securities at amortised cost and those at fair value through OCI are investment grade and therefore considered to be low risk, and thus the impairment allowance is determined at 12-month expected credit losses ('ECL') with a reference to external credit ratings of the counterparties. There were no debt securities 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 2023 and 2022, respectively.

Master netting agreements. The Group enters into derivative transactions and collateral agreements under International Swaps and Derivatives Association (ISDA) master netting agreements with the respective counterparties in order to mitigate counterparty risk. Under such agreements the amounts owed by each counterparty on a single day in respect of all transactions outstanding in the same currency are aggregated into a single net amount that is payable by one party to the other. The ISDA agreements do not meet the criteria for offsetting in the balance sheet as the Group does not have a currently enforceable right to offset recognised amounts, because the right to offset is only enforceable on the occurrence of future events, such as a default or other credit events.

Contract terms. At 31 December 2023 there were no significant financial assets whose terms had been renegotiated (2022: none).

Impairment losses on financial assets excluding equity investments/securities. During 2023 there were no impairment losses (2022: none).

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. Roche and Chugai enjoy strong credit quality and are rated by at least one major credit rating agency. The ratings will permit efficient access to the international capital markets in the event of major financing requirements. At 31 December 2023 the Group had an unused committed credit line with various financial institutions totalling CHF 6.6 billion (2022: CHF 7.2 billion), of which CHF 6.3 billion (2022: CHF 6.9 billion) serve as a back-stop line for the commercial paper program. On 3 July 2019 the previously existing committed credit lines were refinanced by one new committed credit line with an initial maturity of five years and two annual extension options, both of which were exercised extending the maturity to 2026. On 19 January 2024 the Group executed a short-term bridge facility agreement of USD 5.0 billion (CHF 4.2 billion) with banks for general corporate purposes including but not limited to mergers and acquisitions and repayments of maturing debts. The bridge facility has an initial maturity of six months and two extension options for three months each.

The remaining undiscounted cash flow contractual maturities of financial liabilities, including estimated interest payments, are shown in the table below.

Contractual maturities of financial liabilities in millions of CHF

	Carrying value	Total	Less than 1 year	1–2 years	2–5 years	Over 5 years
At 31 December 2023						
Debt [21]						
– Bonds and notes	27,812	35,231	4,616	4,038	11,326	15,251
– Other debt	1,397	1,397	1,397	0	0	0
Contingent consideration [20]	95	106	35	13	38	20
Accounts payable [17]	4,325	4,325	4,325	–	–	–
Other non-current liabilities [18]	1,541	1,708	–	504	481	723
– *of which lease liabilities*	*1,282*	*1,449*	–	*260*	*478*	*711*
Other current liabilities [19]	12,150	12,173	12,079	55	39	0
– *of which lease liabilities*	*291*	*314*	*314*	–	–	–
– *of which derivative financial instruments*	*420*	*420*	*326*	*55*	*39*	*0*
Liabilities directly associated with assets held for sale [6]	8	8	8	–	–	–
Total financial liabilities	**47,328**	**54,948**	**22,460**	**4,610**	**11,884**	**15,994**
At 31 December 2022						
Debt [21]						
– Bonds and notes	23,158	28,153	2,264	3,671	9,319	12,899
– Other debt	2,193	2,193	2,193	0	0	0
Contingent consideration [20]	103	116	38	47	9	22
Accounts payable [17]	4,556	4,556	4,556	–	–	–
Other non-current liabilities [18]	1,189	1,258	–	530	386	342
– *of which lease liabilities*	*891*	*960*	–	*249*	*383*	*328*
Other current liabilities [19]	13,288	13,301	13,150	61	90	0
– *of which lease liabilities*	*302*	*315*	*315*	–	–	–
– *of which derivative financial instruments*	*626*	*626*	*475*	*61*	*90*	*0*
Liabilities directly associated with assets held for sale [6]	0	0	0	–	–	–
Total financial liabilities	**44,487**	**49,577**	**22,201**	**4,309**	**9,804**	**13,263**

Take-or-pay commitments. The Group has entered into contract manufacturing agreements with various companies to further develop manufacturing capacity and flexibility, mainly in the Pharmaceuticals Division. There are future minimum take-or-pay commitments within some of these agreements with a total potential commitment from the Group of CHF 1.7 billion at 31 December 2023 (2022: CHF 1.9 billion).

Commitments for capital calls. The Group holds investments in funds reported as debt investment at fair value through profit or loss in which it has committed to invest further upon future capital calls. As of 31 December 2023 the total uncalled capital commitments for the Group's investments in funds amounted to CHF 72 million (2022: CHF 89 million).

Market risk

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

Value-at-Risk. The Group uses Value-at-Risk (VaR) to measure the impact of market risk on its financial instruments. VaR indicates the value range within which a given financial instrument will fluctuate with a preset probability as a result of movements in market prices. VaR is calculated using a historical simulation approach and for each scenario, all financial instruments are fully valued and the total change in value and earnings is determined. VaR calculations are based on a 95% confidence level and a holding period of 20 trading days over the past ten years. This holding period reflects the time required to change the corresponding risk exposure, should this be deemed appropriate.

Actual future gains and losses associated with the Group's treasury activities may differ materially from the VaR analyses due to the inherent limitations associated with predicting the timing and amount of changes to interest rates, foreign exchange rates and equity investment prices, particularly in periods of high market volatilities. Furthermore, VaR does not include the effect of changes in credit spreads.

Market risk of financial instruments in millions of CHF

	2023	2022
VaR – Interest rate component	440	234
VaR – Foreign exchange component	32	40
VaR – Other price component	38	54
Diversification	(72)	(67)
VaR – Total market risk	**438**	**261**

The interest rate component increased due to the bond issuances during 2023. The foreign exchange component was lower due to a favourable exposure mix. The other price component decreased due to a lower balance of equity investments.

Foreign exchange risk

The Group uses the Swiss franc as its reporting currency and as a result is exposed to movements in foreign currencies, mainly the US dollar, Japanese yen and euro. The Group's foreign exchange risk management strategy is to preserve the economic value of its current and future assets and to minimise the volatility of the Group's financial result. The primary focus of the Group's foreign exchange risk management activities is on hedging transaction exposures arising through foreign currency flows or monetary positions held in foreign currencies. The Group uses forward contracts and foreign exchange options to hedge transaction exposures. Application of these instruments intends to continuously immunise against unfavourable developments of foreign exchange rates.

Interest rate risk

The Group mainly raises debt on a fixed rate basis for bonds and notes. The Group is exposed to movements in interest rates, mainly for its US dollar, Swiss franc and euro floating rate financial instruments and short-term debt. The Group's interest rate risk management strategy is to optimise the net interest result. The Group may use forward contracts, options and interest rate swaps to hedge its interest rate exposures. Depending on the interest rate environment of major currencies, the Group will use these instruments to generate an appropriate mix of fixed and floating rate exposures.

Other price risk

Other price risk arises mainly from movements in the prices of equity securities. The Group manages the price risk through placing limits on individual and total equity investments. These limits are defined both as a percentage of total liquid funds and as an absolute number for individual equity investments.

Capital management

The Group defines the capital that it manages as the Group's total capitalisation, being the sum of debt plus 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.

The capitalisation is reported to senior management as part of the Group's regular internal management reporting and is shown in the table below.

Capital in millions of CHF

	2023	2022	2021
Capital and reserves attributable to Roche shareholders [22]	29,315	27,992	24,489
Equity attributable to non-controlling interests [24]	3,948	4,023	3,856
Total equity	**33,263**	**32,015**	**28,345**
Total debt [21]	**29,209**	**25,351**	**31,198**
Capitalisation	**62,472**	**57,366**	**59,543**

The Group is not subject to regulatory capital adequacy requirements as known in the financial services industry. The Group has a majority shareholding in Chugai (see Note 23). Chugai is a public company and its objectives, policies and processes for managing its own capital are determined by Chugai management.

Financial instrument accounting classifications and fair values

The fair values of financial assets and liabilities, together with the carrying value shown in the consolidated balance sheet, are as follows:

Carrying value and fair value of financial instruments – 2023 in millions of CHF

	Financial instruments mandatorily at fair value through profit or loss	Financial instruments at fair value through OCI	Fair value – hedging instruments	Financial assets at amortised cost	Other financial liabilities	Total carrying value	Fair value
At 31 December 2023							
Other non-current assets [15]							
– Equity and debt investments	298	249	–	–	–	547	547
– Other financial non-current assets	–	–	–	114	–	114	114
Accounts receivable [12]	–	–	–	11,021	–	11,021	11,021
Marketable securities [13]							
– Equity securities	1	–	–	–	–	1	1
– Debt securities	0	512	–	–	–	512	512
– Money market instruments	–	2,359	–	–	–	2,359	2,359
– Time accounts over three months	–	–	–	2,262	–	2,262	2,262
Cash and cash equivalents [14]	–	–	–	5,376	–	5,376	5,376
Other current assets [16]							
– Derivative financial instruments	–	–	148	–	–	148	148
– Other financial current assets	–	–	–	897	–	897	897
Total financial assets	**299**	**3,120**	**148**	**19,670**	**–**	**23,237**	**23,237**
Debt [21]							
– Bonds and notes	–	–	–	–	(27,812)	(27,812)	(27,081)
– Other debt	–	–	–	–	(1,397)	(1,397)	(1,397)
Contingent consideration [20]	(95)	–	–	–	–	(95)	(95)
Accounts payable [17]	–	–	–	–	(4,325)	(4,325)	(4,325)
Other non-current liabilities [18]	–	–	–	–	(1,541)	(1,541)	(1,541)
Other current liabilities [19]	–	–	(420)	–	(11,730)	(12,150)	(12,150)
Liabilities directly associated with assets held for sale [6]	–	–	–	–	(8)	(8)	(8)
Total financial liabilities	**(95)**	**–**	**(420)**	**–**	**(46,813)**	**(47,328)**	**(46,597)**

Carrying value and fair value of financial instruments – 2022 in millions of CHF

	Financial instruments mandatorily at fair value through profit or loss	Financial instruments at fair value through OCI	Fair value – hedging instruments	Financial assets at amortised cost	Other financial liabilities	Total carrying value	Fair value
At 31 December 2022							
Other non-current assets [15]							
– Equity and debt investments	315	356	–	–	–	671	671
– Other financial non-current assets	–	–	–	126	–	126	126
Accounts receivable [12]	–	–	–	11,606	–	11,606	11,606
Marketable securities [13]							
– Equity securities	1	–	–	–	–	1	1
– Debt securities	0	583	–	–	–	583	583
– Money market instruments	–	3,811	–	–	–	3,811	3,811
– Time accounts over three months	–	–	–	381	–	381	381
Cash and cash equivalents [14]	–	–	–	4,991	–	4,991	4,991
Other current assets [16]							
– Derivative financial instruments	–	–	167	–	–	167	167
– Other financial current assets	–	–	–	1,082	–	1,082	1,082
Total financial assets	**316**	**4,750**	**167**	**18,186**	**–**	**23,419**	**23,419**
Debt [21]							
– Bonds and notes	–	–	–	–	(23,158)	(23,158)	(21,443)
– Other debt	–	–	–	–	(2,193)	(2,193)	(2,193)
Contingent consideration [20]	(103)	–	–	–	–	(103)	(103)
Accounts payable [17]	–	–	–	–	(4,556)	(4,556)	(4,556)
Other non-current liabilities [18]	–	–	–	–	(1,189)	(1,189)	(1,189)
Other current liabilities [19]	–	–	(626)	–	(12,662)	(13,288)	(13,288)
Liabilities directly associated with assets held for sale [6]	–	–	–	–	0	0	0
Total financial liabilities	**(103)**	**–**	**(626)**	**–**	**(43,758)**	**(44,487)**	**(42,772)**

The fair value of bonds and notes is Level 1 and is calculated based on the observable market prices of the debt instruments or the present value of the future cash flows on the instrument, discounted at a market rate of interest for instruments with similar credit status, cash flows and maturity periods.

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 other than quoted prices in active markets for identical assets and liabilities.
- Level 3 – unobservable inputs.

Fair value hierarchy of financial instruments in millions of CHF

	Level 1	Level 2	Level 3	Total
At 31 December 2023				
Marketable securities [13]				
– Equity securities at fair value through profit or loss	1	–	–	1
– Debt securities at fair value through OCI	506	6	–	512
– Money market instruments at fair value through OCI	250	2,109	–	2,359
Derivative financial instruments [16]	–	148	–	148
Equity investments at fair value through OCI [15]	241	8	–	249
Equity and debt investments at fair value through profit or loss [15]	98	172	28	298
Financial assets recognised at fair value	**1,096**	**2,443**	**28**	**3,567**
Derivative financial instruments [19]	–	(420)	–	(420)
Contingent consideration [20]	–	–	(95)	(95)
Financial liabilities recognised at fair value	**–**	**(420)**	**(95)**	**(515)**
At 31 December 2022				
Marketable securities [13]				
– Equity securities at fair value through profit or loss	1	–	–	1
– Debt securities at fair value through OCI	518	65	–	583
– Money market instruments at fair value through OCI	0	3,811	–	3,811
Derivative financial instruments [16]	–	167	–	167
Equity investments at fair value through OCI [15]	356	0	–	356
Equity and debt investments at fair value through profit or loss [15]	114	179	22	315
Financial assets recognised at fair value	**989**	**4,222**	**22**	**5,233**
Derivative financial instruments [19]	–	(626)	–	(626)
Contingent consideration [20]	–	–	(103)	(103)
Financial liabilities recognised at fair value	**–**	**(626)**	**(103)**	**(729)**

Level 1 financial assets consisted of treasury bills, bonds and quoted shares. Level 2 financial assets consisted primarily of commercial paper, certificates of deposit and derivative financial instruments.

The Group determines Level 2 fair values using the following valuation techniques:
- Marketable 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.
- Equity and debt investments at fair value through OCI and at fair value through profit or loss are based on a valuation model that uses the most recently published observable market data.

The Group recognises transfers between levels of the fair value hierarchy as at the end of the reporting period during which the transfer occurred. There were no significant transfers between Level 1 and Level 2 and vice versa during the year (2022: none).

Level 3 fair values

Details of the determination of Level 3 fair value measurements are set out below.

Contingent consideration arrangements in millions of CHF

	2023	2022
At 1 January	(103)	(141)
Arising from business combinations	0	0
Utilised for settlements[6]	0	0
Total gains and losses included in the income statement		
– Unused amounts reversed – recorded within other operating income (expense)	10	41
– Additional amount created – recorded within other operating income (expense)	0	(2)
– Discount unwind included in financing costs	(6)	1
Total gains and losses included in other comprehensive income		
– Currency translation effects	4	(2)
At 31 December	**(95)**	**(103)**

Effective 1 January 2023, the Group has made certain presentational and cost allocation changes to the income statement (see Note 34). The comparative information for 2022 has been restated accordingly.

Contingent consideration arrangements

The Group is party to certain contingent consideration arrangements, including those from business combinations. The fair values of contingent consideration from business combinations are determined considering the expected payments and, where payments are expected to be made beyond the next 12 months, discounted to present value using a risk-adjusted average discount rate of 4.9% (2022: 5.3%). The expected payments are determined by considering the possible scenarios of forecast sales and other performance criteria, the amount to be paid under each scenario and the probability of each scenario. The significant unobservable inputs are the forecast sales, other performance criteria and the risk-adjusted discount rate. The estimated fair value would increase if the forecast sales or other performance criteria rates were higher or the risk-adjusted discount rate was lower. At 31 December 2023 the total potential payments under contingent consideration arrangements arising from business combinations could be up to CHF 0.3 billion (2022: CHF 0.4 billion) as follows:

Potential payments under contingent consideration arrangements in millions of CHF

Acquisition	Year acquired	Operating segment	2023	2022
Dutalys	2014	Roche Pharmaceuticals	186	203
Genia	2014	Diagnostics	137	150
At 31 December			**323**	**353**

Derivative financial instruments

Cash collateral agreements are in place with the counterparties to certain derivative financial instruments to mitigate counterparty risk. The following table sets out the carrying value of derivative financial instruments and the amounts that are subject to master netting agreements.

Derivative financial instruments in millions of CHF

	Assets 2023	Assets 2022	Assets 2021	Liabilities 2023	Liabilities 2022	Liabilities 2021
Foreign currency derivatives						
– Forward exchange contracts	147	167	187	(352)	(471)	(242)
– Other	0	0	0	0	0	0
Interest rate derivatives						
– Swaps	1	0	2	(68)	(155)	(20)
– Other	0	0	0	0	0	0
Other derivatives	0	0	0	0	0	0
Carrying value of derivative financial instruments [16, 19]	**148**	**167**	**189**	**(420)**	**(626)**	**(262)**
Derivatives subject to master netting agreements	(68)	(92)	(54)	68	92	54
Collateral arrangements	0	(12)	(32)	50	192	15
Net amount	**80**	**63**	**103**	**(302)**	**(342)**	**(193)**

Collateral arrangements

Movements in cash collateral other receivable (accrued liability) in millions of CHF

	2023	2022
At 1 January	180	(17)
Net cash delivered by (to) the Group	(123)	199
Fair value and other	0	0
Currency translation effects	(7)	(2)
At 31 December	**50**	**180**

Hedge accounting

As described above the Group's risk management strategy is to hedge the transaction exposures arising through foreign currency flows or monetary positions held in foreign currencies as well as to generate an appropriate mix of fixed and floating rate exposures. The level of hedging depends on market conditions and business requirements of the Group. The Group designates a specific interest rate risk management objective to ensure that a predetermined level of its interest rate risk exposure is at a floating rate.

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 the hedging instrument. The Group performs a qualitative assessment of the hedge effectiveness using a critical terms match method. As the critical terms of the hedged items and the hedging instruments match, the Group concludes that risks being hedged for the hedged items and the hedging instruments are sufficiently aligned, that there is no inherent mismatch in the hedging relationship and that a 100% hedge ratio applies both for the actual quantities hedged and for the hedge accounting.

Accounting treatment, sources of ineffectiveness and prospective effectiveness assessment method by risk category

	Accounting treatment	Potential sources of ineffectiveness	Prospective effectiveness assessment method
Interest rate and/or foreign exchange rate fluctuations	Cash flow hedge	Counterparty credit risk	Critical terms match
Foreign exchange rate fluctuations	Cash flow hedge	Lower volume of hedged items / counterparty credit risk	Critical terms match
Interest rate fluctuations	Fair value hedge	Counterparty credit risk	Critical terms match

The ineffective portion of the hedge accounting is recognised in the income statement and included in other financial income (expense). It is measured using the hypothetical derivative method for cash flow hedges and the cumulative dollar offset method for fair value hedges. At 31 December 2023 and 2022 none of the above potential sources of ineffectiveness, individually or collectively, resulted in material amounts of actual ineffectiveness being reported for any hedge accounting relationships.

The table below shows fair values and nominal amounts of derivative financial instruments, including a range of the maturity of the nominal amount of the hedging instruments, which are designated as hedging instruments in a cash flow hedge and a fair value hedge. At 31 December 2023 and 2022, respectively, the Group had the following cash flow hedges and fair value hedges which are designated in a qualifying hedge relationship:

Fair values and nominal amounts of derivatives used for hedge accounting – at 31 December 2023

	Nominal amount	Fair value asset in million CHF	Fair value liability in million CHF	Maturity range
Cash flow hedges				
Risk hedged: foreign exchange rate fluctuations				
– Forward exchange contracts	JPY 647 billion	41	(174)	2024–2025
Risk hedged: interest rate fluctuations				
– Treasury locks	0	0	0	n/a
Total		**41**	**(174)**	
Fair value hedges				
Risk hedged: interest rate fluctuations				
– Interest rate swaps	USD 1,150 million	0	(42)	2024–2026
– Interest rate swaps	EUR 200 million	0	(8)	2025
– Interest rate swaps	CHF 1,250 million	1	(18)	2024–2027
Total		**1**	**(68)**	

Fair values and nominal amounts of derivatives used for hedge accounting – at 31 December 2022

	Nominal amount	Fair value asset in million CHF	Fair value liability in million CHF	Maturity range
Cash flow hedges				
Risk hedged: foreign exchange rate fluctuations				
– Forward exchange contracts	JPY 635 billion	39	(173)	2023–2024
Risk hedged: interest rate fluctuations				
– Treasury locks	0	0	0	n/a
Total		**39**	**(173)**	
Fair value hedges				
Risk hedged: interest rate fluctuations				
– Interest rate swaps	USD 1,540 million	0	(96)	2023–2026
– Interest rate swaps	EUR 500 million	0	(17)	2023–2025
– Interest rate swaps	CHF 1,050 million	0	(42)	2024
Total		**0**	**(155)**	

The fair values of derivative financial instruments used for hedge accounting are included in other current assets (see Note 16) or other current liabilities (see Note 19). The Group's approach to managing market risk, including interest rate risk and foreign currency risk, is discussed in the 'Market risk' section in this Note.

Cash flow hedges. In November and December 2021 the Group entered into treasury locks to hedge interest rate risk of fixed rate notes issued by the Group on 13 December 2021. At this date the treasury locks were settled. At 31 December 2023 a relating hedging reserve of CHF 33 million was held as a deduction within equity (2022: CHF 35 million), which will be released and transferred to the income statement within financing costs (see Note 4) until redemption of the fixed rate notes. There was no ineffective portion.

Chugai has entered into forward exchange contracts to hedge a part of its foreign translation exposure to the Swiss franc and the US dollar. At 31 December 2023 such instruments were recorded as fair value assets of CHF 41 million and as fair value liabilities of CHF 174 million (2022: fair value assets of CHF 39 million and fair value liabilities of CHF 173 million). There was no ineffective portion.

Carrying amount of items designated as hedged items in a cash flow hedging relationship in millions of CHF

	2023 Assets	2023 Liabilities	2022 Assets	2022 Liabilities
At 31 December				
Inventories				
Risk hedged by forward exchange contracts: foreign exchange rate fluctuations				
– Inventories	3,862	–	4,410	–

Hedging reserve for continuing hedging relationships in millions of CHF

	2023 Total	2023 Treasury locks	2023 Forward exchange contracts	2022 Total	2022 Treasury locks	2022 Forward exchange contracts
At 1 January	(92)	(35)	(57)	(60)	(37)	(23)
Gains (losses) taken to equity	(344)	0	(344)	(238)	0	(238)
Transferred to income statement[a]	437	2	435	366	2	364
Transferred to initial carrying amount of hedged items[b]	(111)	–	(111)	(218)	–	(218)
Income taxes	6	0	6	28	0	28
Non-controlling interests	5	0	5	25	0	25
Currency translation effects	9	0	9	5	0	5
At 31 December	**(90)**	**(33)**	**(57)**	**(92)**	**(35)**	**(57)**

a) In 2023, an amount of CHF 2 million was transferred to the income statement (2022: CHF 2 million) and reported in financing costs, see Note 4. An additional amount of CHF 435 million (2022: CHF 364 million) transferred to the income statement was related to forward exchange contracts entered into by Chugai to hedge a part of its foreign translation exposure to the Swiss franc from revenue transactions. Thereof CHF 19 million (2022: CHF 22 million) were reported in other financial income (expense) (see Note 4) as well as CHF 298 million (2022: CHF 266 million) and CHF 118 million (2022: CHF 76 million) were reported in Chugai's sales and other revenue from other operating segments, respectively (see Note 2).

b) The entire amount transferred to the cost of inventory was related to fair value gains and losses on forward exchange contracts designated by Chugai as cash flow hedges to hedge a part of its foreign translation exposure to the Swiss franc and the US dollar from inventory purchase transactions.

The expected undiscounted cash flows from qualifying cash flow hedges, including interest payments during the duration of the derivative contract and final settlement on maturity, are shown in the table below.

Expected cash flows of qualifying cash flow hedges in millions of CHF

	2023 Total	2023 Less than 1 year	2023 More than 1 year	2022 Total	2022 Less than 1 year	2022 More than 1 year
Cash inflows	5,062	4,254	808	6,857	6,114	743
Cash outflows	(5,304)	(4,454)	(850)	(7,155)	(6,407)	(748)
Total cash inflows (outflows)	**(242)**	**(200)**	**(42)**	**(298)**	**(293)**	**(5)**

The undiscounted cash flows in the table above will affect profit or loss as shown below. These include interest payments during the duration of the derivative contract but do not include the final settlement on maturity.

Expected cash flows of qualifying cash flow hedges with impact on profit or loss in millions of CHF

	2023 Total	2023 Less than 1 year	2023 More than 1 year	2022 Total	2022 Less than 1 year	2022 More than 1 year
Cash inflows	0	0	0	0	0	0
Cash outflows	0	0	0	0	0	0
Total cash inflows (outflows)	**0**	**0**	**0**	**0**	**0**	**0**

Fair value hedges. The Group has entered into some interest rate swaps to hedge its exposure to changes in the fair value of some of its fixed-term debt instruments in respect of a benchmark interest rate. At 31 December 2023 such instruments were recorded as fair value assets of CHF 1 million and as fair value liabilities of CHF 68 million (2022: fair value assets of CHF 0 million and fair value liabilities of CHF 155 million). During 2023 fair value adjustments of CHF 88 million were recorded as income on these interest rate swaps (2022: CHF 137 million as expense). As the fair value hedge had been highly effective since inception, the result of the interest rate swaps was largely offset by changes in the fair value of the hedged debt instruments. The Group's approach to managing market risk, including interest rate risk, is discussed in the 'Market risk' section in this Note.

Carrying amount of items designated as hedged items in a fair value hedging relationship in millions of CHF

	Liabilities	Fair value adjustments cumulative	Fair value adjustments in current year
At 31 December 2023			
Bonds and notes			
Risk hedged by interest rate swaps: interest rate fluctuations			
– Bonds and notes	2,348	(67)	88
At 31 December 2022			
Bonds and notes			
Risk hedged by interest rate swaps: interest rate fluctuations			
– Bonds and notes	2,826	(155)	(137)

Net investment hedges. The Group does not have any net investment hedges.

32. Related parties

Controlling shareholders

On 10 February 2023, the Group announced that it had acquired 540,000 shares for a total consideration of CHF 166 million. The repurchased shares were initially reported as treasury shares subsequent to acquisition and will be used to cover current as well as future obligations arising from equity compensation plans. This announcement followed from reports that a member of a shareholder group with pooled voting rights sold 2.7 million Roche shares.

At 31 December 2023, based on the information available to the Group, a shareholder group with pooled voting rights owned 69,318,000 shares representing 64.97% of the issued shares (31 December 2022: 72,018,000 shares representing 67.50% of the issued shares). On 5 December 2019 the shareholder group announced that it would continue the shareholder pooling agreement with a modified shareholder composition. This group now consists of Mr André Hoffmann, Ms Marie-Anne Hoffmann, Ms Vera Michalski, Mr Alexander Hoffmann, Mr Frederic Hoffmann, Ms Isabel Hoffmann, Mr Lucas Hoffmann, Ms Marina Hoffmann, Ms Kasia Barbotin-Larrieu, Ms Tatiana Fabre, Mr Andreas Oeri, Ms Catherine Oeri, Ms Sabine Duschmalé, Mr Jörg Duschmalé, Mr Lukas Duschmalé, the charitable foundation Wolf and Artuma Holding LLC. The shareholder pooling agreement has existed since 1948. The duration of the pool was extended for an indefinite period in 2009. At 31 December 2023, based on the information available to the Group, Ms Maja Oeri, formerly a member of the pool, held 8,091,900 shares independently of the pool, representing 7.58% of the issued shares (31 December 2022: 8,091,900 shares representing 7.58% of the issued shares).

Mr André Hoffmann and Dr Jörg Duschmalé are members of the Board of Directors of Roche Holding Ltd. Mr Hoffmann received remuneration totalling CHF 402,815 (2022: CHF 406,734) and Dr Duschmalé received remuneration totalling CHF 364,592 (2022: CHF 334,475).

There were no other transactions between the Group and the individual members of the above shareholder group.

Subsidiaries and associates

A listing of the Group subsidiaries and associates is included in Note 33. This listing excludes Chugai's subsidiaries as well as companies that are not material, notably companies that are inactive, dormant or in liquidation. Transactions between the parent company and its subsidiaries and between subsidiaries are eliminated on consolidation. There were no significant transactions between the Group and its associates.

Key management personnel

Total remuneration of key management personnel was CHF 42 million (2022: CHF 48 million).

Members of the Board of Directors of Roche Holding Ltd receive an annual remuneration and payment for their time and expenses related to their membership of Board Committees. The Chairman of the Board of Directors and members of the Corporate Executive Committee (CEC) of Roche Holding Ltd receive remuneration which consists of an annual salary, a bonus and an expense allowance. The Group pays social insurance contributions in respect of the above remuneration and pays contributions to pension and other post-employment benefit plans for the Chairman of the Board of Directors and the members of the CEC. The members of the CEC also participate in certain equity compensation plans as described below. The terms, vesting conditions and fair value of these awards are disclosed in Note 27.

Remuneration of the members of the Board of Directors and the Corporate Executive Committee in millions of CHF

	2023	2022
Salaries, including cash-settled bonus	19	22
Executive stock compensation	8	8
Social security costs	2	2
Pensions and other post-employment benefits	3	3
Equity compensation plans	6	7
Board fees	3	3
Other employee benefits	1	3
Total	**42**	**48**

For the purposes of these remuneration disclosures the values for equity compensation plans, including executive stock compensation, are calculated based on the fair value used in Note 27. These represent the cost to the Group of such awards at grant date and reflect, amongst other matters, the observed exercise behaviour and exit rate for the whole population that receive the awards and initial simulations of any performance conditions.

The detailed disclosures regarding executive remuneration that are required by Swiss law are included in the Remuneration Report disclosed in the Annual Report on pages 148 to 177. In those disclosures the values for equity compensation plans, including executive stock compensation, represent the fair value that the employee receives taking into account the preliminary assessment of any completed performance conditions. These fair values are shown in the table below, which reconciles those disclosures required by Swiss law to the above related party disclosures for key management personnel.

Reconciliation to executive remuneration disclosures required by Swiss law in millions of CHF

	2023	2022
Total remuneration of the members of the Board of Directors and Corporate Executive Committee (IFRS basis – see table above)	42	48
Deduct		
– Executive stock compensation (IFRS basis)	(8)	(8)
– Equity compensation plans (IFRS basis)	(6)	(7)
Add back		
– Executive stock compensation (Swiss legal basis)	6	4
– Equity compensation plans (Swiss legal basis)	13	12
Total remuneration of the members of the Board of Directors and Corporate Executive Committee (Swiss legal basis)	**47**	**49**
Of which (including social security costs)		
– Board of Directors (page 165 of the Annual Report)	11	10
– Corporate Executive Committee (page 174 of the Annual Report)	36	39

Executive stock compensation. The Chairman of the Board of Directors until April 2023, Dr Franz, and the Chief Executive Officer will be granted Bonus Stock Awards in lieu of their cash-settled bonus for the financial year 2023. These are subject to approval by the 2024 Annual General Meeting in March 2024 and will be issued in March 2024. From April 2023, the new Chairman of the Board of Directors, Dr Schwan, received part of his base salary in the form of shares blocked for ten years. The number of awards and fair value per award are calculated at the grant date.

Equity compensation plans. The members of the Corporate Executive Committee received equity compensation as shown in the following tables.

Number of rights, options and awards granted to members of the Corporate Executive Committee

	2023	2022
Roche Stock-settled Stock Appreciation Rights	316,516	183,420
Roche Restricted Stock Unit Plan	11,837	7,190

Contributions paid for members of the Corporate Executive Committee in millions of CHF

	2023	2022
Roche Connect	0.1	0.2

Defined benefit plans

Transactions between the Group and the various defined benefit plans for the employees of the Group are described in Note 26.

33. List of subsidiaries and associates

The following is a listing of the Group subsidiaries and associates. It excludes Chugai's subsidiaries as well as companies that are not material, notably companies that are inactive, dormant or in liquidation.

Listed companies

Location	Company	City		Share capital (in millions)	Equity interest (in %)
Switzerland	Roche Holding Ltd Stock Exchange: SIX Swiss Exchange Zurich Stock code (Share): RO, Valor: 1203211 Stock code (*Genussschein*): ROG, Valor: 1203204 ISIN Share: CH0012032113 ISIN *Genussschein*: CH0012032048 Market capitalisation: CHF 196,720 million	Basel	CHF	106.7	
Japan	Chugai Pharmaceutical Co., Ltd. Stock Exchange: Tokyo Stock code: TSE:4519 ISIN: JP3519400000 Market capitalisation: JPY 8,789,267 million	Tokyo	JPY	73,201.8	61.1

Non-listed companies

Location	Company	City		Share capital (in millions)	Equity interest (in %)
Algeria	Roche Algérie SPA	Hydra	DZD	1.0	48
Argentina	Productos Roche S.A. Química e Industrial	Buenos Aires	ARS	18,295.8	100
	Roche Diabetes Care Argentina S.A.	Buenos Aires	ARS	87.4	100
Australia	Roche Diabetes Care Australia Pty Limited	North Ryde	AUD	14.1	100
	Roche Diagnostics Australia Pty Limited	North Ryde	AUD	5.0	100
	Roche Products Pty Limited	Sydney	AUD	65.0	100
Austria	mySugr GmbH	Vienna	EUR	5.7	100
	Roche Austria GmbH	Vienna	EUR	14.5	100
	Roche Diabetes Care Austria GmbH	Vienna	EUR	(–)	100
	Roche Diagnostics GmbH	Vienna	EUR	1.1	100
Bangladesh	Roche Bangladesh Limited	Dhaka	BDT	27.2	100
Belarus	FLLC "Roche Products Limited"	Minsk	USD	1.5	100
Belgium	Roche Diagnostics Belgium NV	Diegem	EUR	3.8	100
	Roche SA/NV	Brussels	EUR	32.0	100
Bermuda	Chemical Manufacturing and Trading Company Limited	Pembroke	USD	(–)	100
	Hoffmann-La Roche Products Limited	Pembroke	USD	(–)	100
	Roche Financial Management Ltd.	Pembroke	USD	(–)	100
	Roche International Ltd.	Pembroke	USD	(–)	100
	Roche Intertrade Limited	Pembroke	USD	10.0	100
	Roche Services Holdings Ltd.	Pembroke	USD	(–)	100
Bolivia	Roche Bolivia S.R.L.	Santa Cruz	BOB	0.1	100
Bosnia and Herzegovina	Roche d.o.o. farmaceutsko drustvo - Roche Ltd. Pharmaceutical Company	Sarajevo	BAM	13.1	100
Brazil	Produtos Roche Químicos e Farmacêuticos S.A.	São Paulo	BRL	1,141.7	100
	Roche Diabetes Care Brasil Ltda.	São Paulo	BRL	44.4	100
	Roche Diagnostica Brasil Ltda.	São Paulo	BRL	683.5	100
Bulgaria	Roche Bulgaria EOOD	Sofia	BGN	5.1	100
Cameroon	Roche Cameroun SARL	Douala	XAF	60.0	100
Canada	Hoffmann-La Roche Limited	Mississauga	CAD	40.3	100
Chile	Roche Chile Limitada	Santiago de Chile	CLP	70.9	100
China	Roche (China) Holding Ltd.	Shanghai	USD	37.3	100
	Roche (Shanghai) Pharmaceuticals Consulting Co., Ltd.	Shanghai	CNY	30.0	100
	Roche (Shanghai) Pharmaceuticals Trading Co., Ltd.	Shanghai	USD	90.0	100
	Roche Diagnostics (Hong Kong) Limited	Hong Kong	HKD	10.0	100
	Roche Diagnostics (Shanghai) Ltd.	Shanghai	USD	31.0	100
	Roche Diagnostics (Suzhou) Limited	Suzhou	USD	160.0	100
	Roche Hong Kong Limited	Hong Kong	HKD	10.0	100
	Roche R&D Center (China) Ltd.	Shanghai	USD	35.8	100
	Shanghai Roche Pharmaceuticals Limited	Shanghai	USD	278.7	70

Location	Company	City		Share capital (in millions)	Equity interest (in %)
Colombia	Productos Roche S.A.	Bogotá	COP	26,923.7	100
	TIB Molbiol S.A.S.	Santiago de Cali	COP	3.0	100
Congo Democratic Republic	Roche DRC SARLU	Kinshasa	USD	0.3	100
Costa Rica	Roche Services Americas, Sociedad de Responsabilidad Limitada	San José	CRC	361.4	100
	Roche Servicios S.A.	Heredia	USD	8.1	100
Côte d'Ivoire	Roche Côte d'Ivoire SARL	Abidjan	XOF	50.0	100
Croatia	Roche d.o.o.	Zagreb	EUR	0.6	100
Czech Republic	Roche s.r.o.	Prague	CZK	200.0	100
Denmark	OBI Aps	Hadsund	DKK	4.4	100
	Roche Diagnostics a/s	Copenhagen	DKK	1.3	100
	Roche Innovation Center Copenhagen A/S	Hoersholm	DKK	100.1	100
	Roche Pharmaceuticals A/S	Copenhagen	DKK	4.0	100
Dominican Republic	Productos Roche Dominicana, S.R.L.	Santo Domingo	DOP	0.6	100
Ecuador	Roche Ecuador S.A.	Quito	USD	28.1	100
Egypt	Roche Diagnostics Egypt for Trading S.A.E.	Giza	EGP	5.0	100
	Roche Egypt for Manufacturing and Trading SAE	Cairo	EGP	229.0	100
	Roche Egypt LLC	Cairo	EGP	228.1	100
El Salvador	Productos Roche (El Salvador) S.A. de C.V.	Antiguo Cuscatlan	USD	(–)	100
Estonia	Roche Eesti OÜ	Tallinn	EUR	0.1	100
Finland	Roche Diagnostics Oy	Espoo	EUR	0.2	100
	Roche Oy	Espoo	EUR	(–)	100
France	Institut Roche SAS	Boulogne-Billancourt	EUR	0.5	100
	Roche Diabetes Care France SAS	Montbonnot-Saint-Martin	EUR	4.5	100
	Roche Diagnostics France SAS	Meylan	EUR	16.0	100
	Roche SAS	Boulogne-Billancourt	EUR	38.2	100
	Timkl SAS	Montbonnot-Saint-Martin	EUR	0.8	100
Georgia	Roche Georgia LLC	Tbilisi	GEL	0.5	100
Germany	Ascur Versicherungsvermittlungs GmbH	Grenzach-Wyhlen	EUR	(–)	100
	Flatiron Health GmbH	Cologne	EUR	(–)	100
	Foundation Medicine GmbH	Penzberg	EUR	(–)	100
	Galenus Mannheim Pharma GmbH	Mannheim	EUR	(–)	100
	Roche Beteiligungs GmbH	Grenzach-Wyhlen	EUR	3.6	100
	Roche Deutschland Holding GmbH	Grenzach-Wyhlen	EUR	6.0	100
	Roche Diabetes Care Deutschland GmbH	Mannheim	EUR	(–)	100
	Roche Diabetes Care GmbH	Mannheim	EUR	(–)	100
	Roche Diagnostics Automation Solutions GmbH	Ludwigsburg	EUR	(–)	100
	Roche Diagnostics Deutschland GmbH	Mannheim	EUR	1.0	100
	Roche Diagnostics GmbH	Mannheim	EUR	94.6	100
	Roche mtm laboratories AG	Mannheim	EUR	1.4	100
	Roche Pharma AG	Grenzach-Wyhlen	EUR	61.4	100
	Roche Privacy GmbH	Grenzach-Wyhlen	EUR	(–)	100
	Roche Real Estate Services Mannheim GmbH	Mannheim	EUR	1.8	100
	Roche Registration GmbH	Grenzach-Wyhlen	EUR	(–)	100
	RoX Health GmbH	Berlin	EUR	(–)	100
	Signature Diagnostics GmbH	Potsdam	EUR	0.1	100
	TIB Molbiol Syntheselabor GmbH	Berlin	EUR	(–)	100
Ghana	Roche Products Ghana Limited	Accra	GHS	1.2	100
Greece	Roche (Hellas) S.A.	Marousi	EUR	19.2	100
	Roche Diagnostics (Hellas) S.A.	Marousi	EUR	8.3	100
Guatemala	Productos Roche Guatemala (Sociedad Anónima)	Guatemala City	GTQ	0.6	100
Honduras	Productos Roche (Honduras), S.A.	Tegucigalpa	HNL	(–)	100
Hungary	Roche (Hungary) Ltd	Budapest	HUF	30.0	100
	Roche Services (Europe) Ltd	Budapest	HUF	3.0	100
India	Roche Diabetes Care India Private Limited	Mumbai	INR	15.2	100
	Roche Diagnostics India Private Limited	Mumbai	INR	149.2	100
	Roche Information Solutions India Private Limited	Pune	INR	(–)	100
	Roche Products (India) Private Limited	Mumbai	INR	14.0	100
Indonesia	P.T. Roche Indonesia	Jakarta	IDR	43,770.0	100
Iran	Roche Pars Co. (Ltd.)	Tehran	IRR	41,610.0	100
Ireland	Inflazome Limited	Dublin	EUR	(–)	100
	Roche Ireland Limited	Clarecastle	EUR	2.4	100
	Roche Products (Ireland) Limited	Dublin	EUR	(–)	100
	Spark Therapeutics Ireland Limited	Dublin	EUR	(–)	100

Location	Company	City		Share capital (in millions)	Equity interest (in %)
Israel	Medingo Ltd.	Yokneam Illit	ILS	8.0	100
	Roche Pharmaceuticals (Israel) Ltd.	Hod Hasharon	ILS	(–)	100
Italy	Roche Diabetes Care Italy S.p.A.	Monza	EUR	40.2	100
	Roche Diagnostics S.p.A.	Monza	EUR	18.1	100
	Roche S.p.A.	Monza	EUR	34.1	100
Japan	Flatiron Health K.K.	Tokyo	JPY	10.0	100
	Roche DC Japan K. K.	Tokyo	JPY	10.0	100
	Roche Diagnostics K.K.	Tokyo	JPY	2,500.0	100
Jordan	F. Hoffmann-La Roche Ltd / Jordan P.S.C.	Amman	JOD	(–)	100
Kazakhstan	Roche Kazakhstan LLP	Almaty	KZT	150.0	100
Kenya	Roche Kenya Limited	Nairobi	KES	50.0	100
Kuwait	Roche for the Trade in Medicines, Equipment, Devices and Medical Supplies SPC	Kuwait City	KWD	1.8	100
Latvia	Roche Latvija SIA	Riga	EUR	1.7	100
Lebanon	Roche Lebanon S.A.R.L.	Beirut	LBP	1,000.0	100
Lithuania	UAB Roche Lietuva	Vilnius	EUR	0.2	100
Malaysia	Roche (Malaysia) Sdn. Bhd.	Kuala Lumpur	MYR	4.0	100
	Roche Diagnostics (Malaysia) Sdn. Bhd.	Petaling Jaya	MYR	0.9	100
	Roche Services (Asia Pacific) Sdn. Bhd.	Kuala Lumpur	MYR	0.5	100
Mauritius	Roche Products (Mauritius) Ltd	Moka	MUR	4.0	100
Mexico	Productos Roche, S.A. de C.V.	Mexico City	MXN	82.6	100
	Roche DC México, S.A. de C.V.	Mexico City	MXN	3.9	100
Morocco	Roche S.A.	Casablanca	MAD	59.5	100
Myanmar	Roche Myanmar Company Limited	Yangon	USD	(–)	100
Netherlands	Roche Diabetes Care Nederland B.V.	Almere	EUR	0.6	100
	Roche Diagnostics Nederland B.V.	Almere	EUR	2.3	100
	Roche Finance Europe B.V.	Woerden	EUR	2.0	100
	Roche Nederland B.V.	Woerden	EUR	10.9	100
	Roche Pharmholding B.V.	Woerden	EUR	467.8	100
New Zealand	Roche Diagnostics NZ Limited	Auckland	NZD	3.0	100
	Roche Products (New Zealand) Limited	Auckland	NZD	13.5	100
Nicaragua	Productos Roche (Nicaragua), S.A.	Managua	NIO	0.9	100
Nigeria	Roche Products Limited	Lagos	NGN	200.0	100
North Macedonia	Roche Makedonija DOOEL	Skopje	EUR	0.3	100
Norway	Roche Diagnostics Norge AS	Oslo	NOK	5.8	100
	Roche Norge AS	Oslo	NOK	6.2	100
Pakistan	Roche Pakistan Limited	Karachi	PKR	2,063.3	100
Panama	Productos Roche (Panama), S.A.	Panama City	PAB	(–)	100
	Productos Roche Interamericana S.A. (PRISA)	Panama City	USD	0.1	100
	Roche Products Inc.	Panama City	USD	0.5	100
	Syntex Puerto Rico, Inc.	Panama City	USD	(–)	100
Paraguay	Roche Diagnostics Paraguay S.A.	Asunción	PYG	10,197.6	100
Peru	Productos Roche Q.F.S.A.	Lima	PEN	11.1	100
	Roche Farma (Peru) S.A.	Lima	PEN	38.1	100
Philippines	Roche (Philippines) Inc.	Taguig City	PHP	300.0	100
Poland	Roche Diabetes Care Polska sp. z o.o.	Warsaw	PLN	2.0	100
	Roche Diagnostics Polska Sp. z o.o.	Warsaw	PLN	8.0	100
	Roche Polska Sp. z o.o.	Warsaw	PLN	25.0	100
Portugal	Roche Farmacêutica Química, Lda.	Amadora	EUR	1.1	100
	Roche Sistemas de Diagnósticos, Sociedade Unipessoal, Lda.	Amadora	EUR	2.6	100
Puerto Rico	Genentech P.R., Inc.	San Juan	USD	(–)	100
Romania	Roche Romania S.R.L.	Bucharest	RON	472.2	100
Russian Federation	"Roche-Moscow" JSC.	Moscow	RUB	2.6	100
	Limited Liability Company Roche Diabetes Care Rus	Moscow	RUB	100.0	100
	Limited Liability Company Roche Diagnostics Rus	Moscow	RUB	250.0	100
Saudi Arabia	Roche Diagnostics Saudi Arabia LLC	Riyadh	SAR	200.0	75
	Roche Products Saudi Arabia LLC	Jeddah	SAR	30.0	100
Serbia	Roche d.o.o. Beograd	Belgrade	RSD	939.1	100
Singapore	Roche Diabetes Care Asia Pacific Pte. Ltd.	Singapore	SGD	0.6	100
	Roche Diagnostics Asia Pacific Pte. Ltd.	Singapore	SGD	20.4	100
	Roche Singapore Pte. Ltd.	Singapore	SGD	4.0	100
	Roche Singapore Technical Operations, Pte. Ltd.	Singapore	USD	35.0	100

Location	Company	City		Share capital (in millions)	Equity interest (in %)
Slovakia	Roche Slovensko, S.R.O.	Bratislava	EUR	0.3	100
Slovenia	Roche farmacevtska družba d.o.o.	Ljubljana	EUR	0.2	100
South Africa	Kapa Biosystems (Pty) Ltd	Cape Town	ZAR	(–)	100
	Roche Diabetes Care South Africa Proprietary Limited	Midrand	ZAR	15.0	100
	Roche Diagnostics Proprietary Limited	Midrand	ZAR	(–)	100
	Roche Products (Proprietary) Limited	Midrand	ZAR	60.0	100
South Korea	Roche Diagnostics Korea Co., Ltd.	Seoul	KRW	22,969.0	100
	Roche Korea Company Ltd.	Seoul	KRW	13,375.0	100
Spain	Roche Diabetes Care Spain, S.L.	Sant Cugat del Vallès	EUR	1.0	100
	Roche Diagnostics S.L.	Sant Cugat del Vallès	EUR	17.0	100
	Roche Farma, S.A.	Madrid	EUR	45.0	100
Sweden	Roche AB	Solna	SEK	20.0	100
	Roche Diagnostics Scandinavia AB	Solna	SEK	9.0	100
Switzerland	Biopharm AG	Basel	CHF	0.3	100
	F. Hoffmann-La Roche Ltd	Basel	CHF	150.0	100
	Hoffmann - La Roche Ltd	Basel	CHF	0.5	100
	InterMune International AG	Basel	CHF	10.0	100
	Museum Tinguely AG	Basel	CHF	0.1	100
	Phaor AG	Basel	CHF	0.2	100
	Roche Capital Market Ltd	Basel	CHF	1.0	100
	Roche Catalyst Investments Ltd.	Basel	USD	0.5	100
	Roche Chemische Unternehmungen AG	Basel	CHF	1.3	100
	Roche Diabetes Care (Switzerland) Ltd	Rotkreuz	CHF	0.1	100
	Roche Diagnostics (Switzerland) Ltd	Rotkreuz	CHF	1.0	100
	Roche Diagnostics International Ltd	Rotkreuz	CHF	20.0	100
	Roche Finance Ltd	Basel	CHF	409.2	100
	Roche Financial Investments Ltd.	Basel	EUR	0.5	100
	Roche Forum Buonas Ltd	Buonas	CHF	0.1	100
	Roche Glycart Ltd	Schlieren	CHF	0.3	100
	Roche Long Term Foundation	Basel	CHF	0.5	100
	Roche Pharma (Switzerland) Ltd	Basel	CHF	2.0	100
	Roche Sapac Ltd.	Basel	CHF	0.5	100
	Tavero AG	Basel	CHF	0.1	100
Taiwan	Roche Diagnostics Ltd.	Taipei	TWD	1,107.4	100
	Roche Products Ltd.	Taipei	TWD	2,212.7	100
Thailand	Roche Diagnostics (Thailand) Limited	Bangkok	THB	103.0	100
	Roche Thailand Limited	Bangkok	THB	12.0	100
Tunisia	Roche Tunisie SA	Tunis	TND	0.8	100
Türkiye	Infogenetik Moleküler Bilgi Hizmetleri Anonim Şirketi	Istanbul	TRY	3.5	100
	Roche Diagnostics Turkey Anonim Şirketi	Istanbul	TRY	250.0	100
	Roche Müstahzarlari Sanayi Anonim Şirketi	Istanbul	TRY	249.5	100
Ukraine	Roche Ukraine LLC	Kiev	UAH	124.0	100
United Arab Emirates	Roche Diabetes Care Middle East FZCO	Dubai	AED	0.5	100
	Roche Diagnostics Middle East FZCO	Dubai	AED	19.0	100
	Roche Pharmaceuticals Middle East FZCO	Dubai	AED	0.5	100
United Kingdom	Flatiron Health UK Ltd	St Albans	GBP	(–)	100
	Inflazome UK Limited	Welwyn Garden City	GBP	(–)	100
	InterMune Holdings Limited	Welwyn Garden City	GBP	(–)	100
	Roche Diabetes Care Limited	Burgess Hill	GBP	0.4	100
	Roche Diagnostics Limited	Burgess Hill	GBP	32.6	100
	Roche Holding (UK) Limited	Welwyn Garden City	GBP	100.0	100
	Roche Products Limited	Welwyn Garden City	GBP	98.3	100
	Roche Registration Limited	Welwyn Garden City	GBP	(–)	100
	Spark Therapeutics UK Ltd	London	GBP	(–)	100
	TMEM16A Limited	Welwyn Garden City	GBP	0.2	100
	Tusk Therapeutics Limited	Welwyn Garden City	GBP	(–)	100

Location	Company	City		Share capital (in millions)	Equity interest (in %)
United States	Adheron Therapeutics, Inc.	South San Francisco	USD	(–)	100
	Anadys Pharmaceuticals, Inc.	South San Francisco	USD	(–)	100
	Bina Technologies, Inc.	Pleasanton	USD	(–)	100
	BioVeris Corporation	Indianapolis	USD	(–)	100
	Flatiron Health, Inc.	New York	USD	(–)	100
	ForSight VISION4, Inc.	South San Francisco	USD	(–)	100
	Foundation Medicine, Inc.	Cambridge	USD	(–)	100
	Freenome Holdings, Inc.	South San Francisco	USD	(–)	16
	Genentech USA, Inc.	South San Francisco	USD	(–)	100
	Genentech, Inc.	South San Francisco	USD	(–)	100
	GenMark Diagnostics, Inc.	Carlsbad	USD	(–)	100
	GenMark Holdings, Inc.	Carlsbad	USD	(–)	100
	Good Therapeutics, Inc.	South San Francisco	USD	(–)	100
	Hoffmann-La Roche Inc.	Little Falls	USD	3.0	100
	IGEN International, Inc.	Pleasanton	USD	(–)	100
	Ignyta, Inc.	South San Francisco	USD	(–)	100
	InterMune, Inc.	South San Francisco	USD	(–)	100
	IQuum, Inc.	Indianapolis	USD	(–)	100
	Jecure Therapeutics, Inc.	South San Francisco	USD	(–)	100
	Kapa Biosystems, Inc.	Wilmington	USD	(–)	100
	Lexent Bio, Inc.	Cambridge	USD	(–)	100
	Memory Pharmaceuticals Corp.	Little Falls	USD	(–)	100
	Prescient Design Corp.	South San Francisco	USD	(–)	100
	Promedior, Inc.	South San Francisco	USD	(–)	100
	Protocol First, Inc.	Salt Lake City	USD	(–)	100
	Roche Diabetes Care, Inc.	Indianapolis	USD	(–)	100
	Roche Diagnostics Corporation	Indianapolis	USD	(–)	100
	Roche Diagnostics Hematology, Inc.	Westborough	USD	(–)	100
	Roche Diagnostics Operations, Inc.	Indianapolis	USD	(–)	100
	Roche Diagnostics Seattle, Inc.	Seattle	USD	(–)	100
	Roche Holdings, Inc.	South San Francisco	USD	1.0	100
	Roche Laboratories Inc.	Little Falls	USD	(–)	100
	Roche Molecular Systems, Inc.	Pleasanton	USD	(–)	100
	Roche Palo Alto LLC	South San Francisco	USD	(–)	100
	Roche Sequencing Solutions, Inc.	Pleasanton	USD	(–)	100
	Roche TCRC, Inc.	Little Falls	USD	(–)	100
	Seragon Pharmaceuticals Inc.	South San Francisco	USD	(–)	100
	Spark Therapeutics International Holdings, Inc.	Philadelphia	USD	(–)	100
	Spark Therapeutics, Inc.	Philadelphia	USD	(–)	100
	Tanox, Inc.	South San Francisco	USD	(–)	100
	Telavant Holdings, Inc.	New York	USD	1.4	100
	Telavant, Inc.	New York	USD	(–)	100
	Therapeutic Human Polyclonals, Inc.	South San Francisco	USD	(–)	100
	TIB Molbiol LLC	Howell Township	USD	(–)	100
	Ventana Medical Systems, Inc.	Tucson	USD	(–)	100
	Viewics, Inc.	Santa Clara	USD	(–)	100
Uruguay	Roche International Ltd. (Montevideo Branch)	Montevideo	UYU	(–)	100
Venezuela	Productos Roche S.A.	Caracas	VEF	156.9	100
Vietnam	Roche Pharma (Vietnam) Company Limited	Ho Chi Minh City	VND	75,600.0	100
	Roche Vietnam Company Limited	Ho Chi Minh City	USD	25.0	100

(–) = share capital of less than 100,000 local currency units.

34. Accounting policies

This note provides a list of accounting policies adopted by the Group in the preparation of the Annual Financial Statements and the changes in accounting policies in 2023.

Consolidation policy

Subsidiaries are all companies over which the Group has control. The Group 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. Intercompany balances, transactions and resulting unrealised 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.

Segment reporting

For the purpose of segment reporting the Group's Corporate Executive Committee (CEC) is considered to be the Group's Chief Operating Decision Maker. The determination of the Group's operating segments is based on the organisation units for which information is reported to the CEC on a regular basis. The information provided is used as the basis of the segment revenue and profit disclosures reported in Note 2, with the geographic analysis based on the location of customers. Selected segment balance sheet information is also routinely provided to the CEC.

Transfer prices between operating segments are set on an arm's length basis. Operating assets and liabilities consist of property, plant and equipment, goodwill and intangible assets, trade receivables/payables, inventories and other assets and liabilities, such as provisions, which can be reasonably attributed to the reported operating segments. Non-operating assets and liabilities mainly include current and deferred income tax balances, post-employment benefit assets/liabilities and financial assets/liabilities such as cash, marketable securities, investments and debt.

Foreign currency translation

The Annual Financial Statements are presented in Swiss francs. Most Group companies use their local currency as their functional currency. Certain Group companies use other currencies (such as US dollar, Swiss franc or 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 or arise on monetary items that, in substance, form part of the Group's net investment in a foreign entity. In such cases the gains and losses are deferred into other comprehensive income.

Upon consolidation, assets and liabilities of Group companies using functional currencies other than Swiss francs are translated into Swiss francs 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 (product sales) and services rendered are recorded as 'Sales'.

Sales are recognised when a promise in a customer contract (performance obligation) has been satisfied by transferring control over the promised goods and services to the customer. Control over a promised good or service refers to the ability to direct the use of, and obtain substantially all of the remaining benefits from, those goods or services. Control is usually transferred upon shipment, delivery to, upon receipt of goods by the customer, or as services are rendered, in accordance with the delivery and acceptance terms agreed with the customers. For goods subject to installation, such as instruments sold in the Diagnostics Division, sales are generally recognised upon completion of the installation at the customer's site and customer acceptance. The amount of sales to be recognised (transaction price) is based on the consideration the Group expects to receive in exchange for its goods and services, excluding amounts collected on behalf of third parties such as value added taxes or other taxes directly linked to sales. If a contract contains more than one performance obligation, the transaction price is allocated to each performance obligation based on their relative stand-alone selling prices.

Instruments in the Diagnostics Division may be sold together with other goods such as reagents and other consumables as well as services under a single contract or under several contracts that are combined for revenue recognition purposes. Sales are recognised upon satisfaction of each of the performance obligations in the contract. Instruments are either sold in cash and instalment sales transactions or otherwise made available to customers under finance lease and operating lease transactions.

- Finance leases: Arrangements in which the Group transfers substantially all of the risks and rewards of ownership to the customer are treated as finance lease arrangements. Income from finance leases is recognised as sales at amounts that represent the fair value of the instrument, which approximates the present value of the minimum lease payments under the arrangement. As interest rates embedded in finance lease arrangements are approximately market rates, income from finance leases is comparable to revenue for outright sales. Finance income for finance lease arrangements longer than twelve months is deferred and subsequently recognised based on a pattern that approximates the use of the effective interest rate method and recorded in other revenue.
- Operating leases: Income from operating leases is recognised as sales on a straight-line basis over the lease term or, when lease revenue is entirely variable and subject to subsequent reagent sales, as the performance obligation to deliver reagents is satisfied.

Sales, net of discounts, are based on estimates regarding the related obligations, including their stand-alone selling prices or fair values. It requires judgement to determine when different obligations are satisfied, including whether enforceable purchase commitments for further obligations exist and when they arise.

For contracts with distributors, no sales are recognised when goods are physically transferred to the distributor under a consignment arrangement, or if the distributor acts as an agent. In such cases, sales are recognised when control over the goods transfers to the end-customer, and distributor's commissions are presented within selling, general and administration costs. Commissions and similar payments to distributors acting as principals are deducted from sales unless such payments are in exchange for a distinct service.

The consideration received by the Group in exchange for its goods and services may be fixed or variable. Variable consideration is only recognised when it is considered highly probable that a significant revenue reversal will not occur once the underlying uncertainty related to variable consideration is subsequently resolved. The most common elements of variable consideration in the Pharmaceuticals Division are listed below:

- Government and regulatory mandatory price reductions. The major elements of these mandatory price reductions are the 340B Drug Discount Program, Medicaid and other plans in the US.
- Contractual price reductions. These include rebates and chargebacks that are the result of contractual agreements that are primarily volume based and performance based.
- Cash discounts. These include credits offered to wholesalers for remitting payment on their purchases within contractually defined incentive periods.
- Customer returns reserves. These are allowances established for expected product returns.

Revenues from product sales are recorded net of allowances for estimated rebates, chargebacks, cash discounts and estimates of product returns, all of which are established at the time of sale. All product sales allowances are based on estimates of the amounts earned or to be claimed on the related sales. These estimates take into consideration historical experience, current contractual and statutory requirements, specific known market events and trends such as competitive pricing and new product introductions, estimated inventory levels, and the shelf life of products. If actual future results vary, these estimates need to be adjusted, with an effect on sales and earnings in the period of the adjustment. Sales reductions that are expected to be withheld by the customer upon settlement, such as contractual price reductions and cash discounts, are recorded in the balance sheet as a deduction from trade receivables. Sales reductions that are separately payable to customers, governmental health authorities or healthcare regulatory authorities are recorded in the balance sheet as accrued liabilities. Provisions for sales returns are recorded in the balance sheet as other provisions.

The Group recognises a deferred income (contract liability) if consideration has been received (or has become receivable) before the Group transfers the promised goods or services to the customer. Deferred income mainly relates to remaining performance obligations for goods free of charge under certain patient access or similar programmes, reagents and other consumables and services.

Remaining performance obligations in (partially) unsatisfied long-term contracts are either included in deferred income or are related to amounts the Group expects to receive for goods and services that have not yet been transferred to customers under existing, non-cancellable or otherwise enforceable contracts. These are mainly associated with contracts with minimum purchase commitments related to reagents and consumables for previously sold instruments as well as monitoring and maintenance services. For contracts that have an original duration of one year or less, the Group has elected the practical expedient to not disclose the transaction price for remaining performance obligations at the end of each reporting period and at which point in time the Group expects to recognise these sales.

Other revenue. Other revenue includes royalty income, profit-share income, other income from collaboration and out-licensing agreements and other items, including interest income from finance leases.

Royalty income earned through a licence is recognised as the underlying sales are recorded by the licensee. Income from profit-sharing agreements with collaboration partners is recognised as underlying sales and cost of sales are recorded by the collaboration partners.

Income from out-licensing agreements typically arises from the receipt of upfront, milestone and other similar payments from third parties for granting a licence to product- or technology-related intellectual property (IP). Collaboration and 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. Licences 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 recognised upon granting the licence unless some of the income shall be deferred for other performance obligations using the residual approach. Such deferred income is released and recognised as revenue when other performance obligations are satisfied. Milestone payments are typically received upon reaching a specific scientific milestone (development milestone) or upon achieving a certain annual sales milestone (commercial milestone). Development milestone income is recognised at the point in time when it is highly probable that the respective milestone event criterion is achieved, and the risk of revenue reversal is considered remote. Commercial milestone income is accrued and recognised as revenue when it is highly probable that the annual sales milestone is reached during the period.

Also included is income from other services rendered which are usually not part of the Group's primary business activities, to the extent that such revenue is not recorded under 'Sales', and is recognised when control transfers and performance obligations are satisfied.

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 agreements, 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 capitalisation 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 ongoing 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 capitalised 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, including asset acquisitions, are capitalised 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 recognised 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.

Other operating income (expense)

Other operating income (expense) includes non-revenue income and expenses that do not fall into the regular functional costs. Amongst others, it includes impairment charges related to goodwill and income from disposal of product rights. Payments received for the disposal of products and similar rights are recognised as income upon transfer of control over such rights.

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 recognised within the operating results when the employee has rendered the associated service. The Group recognises a liability for profit sharing and bonuses where contractually obliged or where there is a past practice that has created a constructive obligation.

Long-term employee benefits include long-service or sabbatical leave, long-service benefits and long-term disability benefits. The expected costs of these benefits are accrued over the period of employment. Any changes in the carrying value of other long-term employee benefit liabilities are recognised within the operating results.

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 recognised at the earlier of when the Group can no longer withdraw the offer of the benefits or when the Group recognises any related restructuring costs.

Pensions and other post-employment benefits

For defined contribution plans the Group contributions are recognised within the operating results when the employee has rendered the associated service. Prepaid contributions are recognised as an asset to the extent that a cash refund or a reduction in future payments is available.

For defined benefit plans the liability recognised in the balance sheet is the present value of the defined benefit obligation less the fair value of the plan assets. All changes in the net defined benefit liability are recognised as they occur as follows:

Recognised in the income statement:
- Current service cost is charged to the appropriate income statement heading within the operating results.
- Past service cost, including curtailment gains or losses, is recognised immediately in other operating income (expense) within the operating results.
- Settlement gains or losses are recognised in other operating income (expense) within the operating results.
- Net interest on the net defined benefit liability is recognised in financing costs.

Recognised 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.
- Any change in the limit on the recognition of plan assets, excluding amounts included in net interest on the net defined benefit liability.

Net interest on the net defined benefit liability is comprised of interest income on plan assets, interest cost on the defined benefit obligation and interest on the effect of the limit on the recognition of pension assets. The net interest is calculated using the same discount rate that is used in calculating the defined benefit obligation, applied to the net defined liability at the start of the period, taking into account 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 granted to 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. Interest and other borrowing costs incurred with respect to qualifying assets are capitalised and included in the carrying value of the assets. 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:	
• Diagnostic instruments	3–5 years
• Office equipment	3–6 years
• Motor vehicles	5–8 years
• Other machinery and equipment	4–15 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

Where the Group is the lessee. 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 recognises 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 recognised 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 extension or purchase options if the Group is reasonably certain to exercise. The lease liability is subsequently measured at amortised 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 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.

Where the Group is the lessor. Certain assets, mainly diagnostics instruments, are leased to third-party customers through both finance and operating lease arrangements. Such transactions may be entered into in separate contracts or in combined contracts including reagents and other consumables and services. The treatment of leasing transactions is mainly determined by whether the lease is considered to be an operating or finance lease, which requires judgement. In making this assessment, management looks at the substance of the lease, as well as the legal form, and makes a judgement about whether substantially all of the risks and rewards of ownership are transferred. If this is the case, then the lease is a finance lease. If not, then it is an operating lease. Arrangements which do not take the legal form of a lease but that nevertheless convey the right to use an asset are also covered by such judgemental assessments.

- Finance leases: Finance lease assets are reported as receivables at an amount equal to the net investment in the lease. Income from finance leases is recognised as sales at amounts that represent the stand-alone selling price of the instrument, which approximates the present value of the minimum lease payments under the arrangement. Minimum lease payments exclude any variable lease payments or contingent rent. Finance income for finance lease arrangements longer than twelve months is deferred and subsequently recognised based on a pattern that approximates the use of the effective interest method and recorded in other revenue.
- Operating leases: Income from operating leases is recognised as sales on a straight-line basis over the lease term at amounts that represent the stand-alone selling price of the instrument, which approximates the present value of the minimum lease payments under the arrangement. Minimum lease payments exclude any variable lease payments or contingent rent. When lease revenue is entirely based on variable lease payments and subject to subsequent reagent sales, it is recognised as the performance obligations for reagents are satisfied.

Sales, net of discounts, are based on estimates regarding the related obligations, including their stand-alone selling prices. It requires judgement to determine when different obligations are satisfied, including whether enforceable purchase commitments for further obligations exist and when they arise.

Mergers and acquisitions

Business combinations. Business combinations are accounted for using the acquisition method of accounting. At the date of the acquisition the Group initially recognises the fair value of the identifiable assets acquired, the liabilities assumed and any non-controlling interest in the acquired business. The consideration transferred is measured at fair value at the date of acquisition. Where the Group does not acquire 100% ownership of the acquired business, non-controlling interests are recorded either at fair value or as the proportion of the fair value of the acquired net assets attributable to the non-controlling interest. Directly attributable acquisition-related costs are expensed as incurred within other operating income (expense).

Asset acquisitions. Asset acquisitions are acquisitions of legal entities that do not qualify as business combinations. At the date of the acquisition the Group initially recognises the individual identifiable assets acquired and liabilities assumed. The cost to the Group at the date of the acquisition is allocated to the individual identifiable assets and liabilities on the basis of their relative fair values at the date of the acquisition. Subsequent consideration for performance-related development milestones is recognised as intangible assets when the specific milestones have been achieved and other recognition criteria are met. Such transactions do not give rise to goodwill. Material directly attributable acquisition-related costs are included in the cost of the acquired assets.

Goodwill

Goodwill arises in a business combination and is the excess of the consideration transferred to acquire the business over the underlying fair value of the net identified assets acquired. Goodwill is not amortised but is tested for impairment at least annually and upon the occurrence of an indication of impairment.

Intangible assets

Purchased patents, licences, trademarks and other intangible assets are initially recorded at cost. Assets that have been acquired through a business combination are initially recorded at fair value. Commercial software development costs are capitalised when certain recognition criteria such as technical feasibility and commercial viability are met. Once available for use, intangible assets are amortised on a straight-line basis over their useful lives. Intangible assets are reviewed for impairment at each reporting date. 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 amortisable intangible assets are as follows:

Product intangibles in use	up to 20 years
Other intangible assets:	
• Marketing intangibles in use	up to 15 years
• Technology intangibles in use	up to 20 years

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

An impairment assessment is carried out 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 of disposal 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, generally over a five-year period, with extrapolating projections for subsequent years. These are discounted using an appropriate long-term interest rate. Fair value less costs of disposal is calculated using a discounted cash flow approach and reflects estimates of the assumptions that market participants would be expected to use when pricing the assets using often unobservable market inputs. When an impairment loss arises, the useful life of the asset is reviewed and, if necessary, the future depreciation/amortisation 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 recognised, then the previously recognised impairment loss is reversed through the income statement as an impairment reversal.

Impairment of goodwill

Goodwill is assessed for impairment at each reporting date and is additionally tested annually for impairment. Goodwill is allocated to cash-generating units and when the recoverable amount of the cash-generating unit, being the higher of its fair value less costs of disposal or its value in use, is less than its carrying value, then the carrying value of the goodwill is reduced to its recoverable amount. This reduction is reported in the income statement as an impairment loss. When an acquired business that is included within a cash-generating unit permanently ceases to operate, then it is treated as a disposal of that business. For separately identifiable goodwill that was generated on the initial acquisition of that business and where all of the factors that made up that goodwill are entirely unrelated to the continuing operations of the cash-generating unit, then the goodwill is deemed to have been disposed of and is fully impaired. As described in Note 9, this also applies if acquired products permanently cease to generate economic benefits or if acquired technologies permanently cease to operate. The impairment testing methodology is further described in Note 9.

Inventories

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

Receivables, including accounts receivable

Receivables 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. An allowance for doubtful accounts is recorded for expected credit losses over the term of the 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. Expenses for doubtful trade receivables are recognised within selling, general and administration costs. 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.

Receivables are written off (either partly 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 recognised in profit or loss.

For trade and lease receivables, the Group applies the simplified approach prescribed by IFRS 9, which requires/permits the use of the lifetime expected loss provision from initial recognition of the receivables. The Group measures an allowance for doubtful accounts equal to the credit losses expected over the lifetime of the trade and lease receivables.

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.

Assets held for sale and liabilities directly associated with assets held for sale

Assets held for sale and the liabilities directly associated with assets held for sale are presented separately in the current section of the balance sheet where their carrying amounts are to be recovered principally through a sale transaction which is considered highly probable to be completed within 12 months. Immediately before the initial classification as held for sale, the carrying amounts of the assets and liabilities are measured in accordance with the applicable accounting policy. Assets held for sale and the directly associated liabilities are subsequently measured at the lower of their carrying amount and fair value less costs to sell. Assets held for sale are no longer amortised or depreciated.

Provisions and contingencies

Provisions are recognised 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 recognised 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 recognised, 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 instruments in the following measurement categories which are disclosed in Note 31: amortised cost; fair value through OCI; fair value through OCI – equity investments; or fair value through profit or loss (including hedging instruments).

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 at amortised 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 plus, 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. Transaction costs of financial assets carried at fair value through profit or loss are expensed in profit or loss.

Amortised 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 amortised cost, less provision for impairment. A gain or loss on a debt security that is subsequently measured at amortised cost and is not part of a hedging relationship is recognised in profit or loss when the asset is derecognised or impaired. Interest income from these financial assets is included in other financial income using the effective interest rate method. Assets at amortised cost are mainly comprised of accounts receivable, cash and cash equivalents and time accounts over three months.

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. Those 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 recognised in profit or loss. When the financial asset is derecognised, the cumulative gain or loss previously recognised 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. Fair value through other comprehensive income assets are mainly comprised of money market instruments and debt securities.

Equity investments at fair value through other comprehensive income (fair value through OCI). These are equity investments in private biotechnology companies, which are kept as part of the Group's strategic alliance efforts. These assets are subsequently measured at fair value. Dividends are recognised as other financial income in profit or loss unless the dividend clearly represents a recovery of part of the cost of the investment. Other net gains and losses are recognised in OCI and included in the fair value reserve. When such an asset is derecognised, the cumulative gain or loss previously recognised in OCI is reclassified within equity from the fair value reserve to retained earnings and never to profit or loss.

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 recognised 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 equity investments/securities and debt investments. Contingent consideration liabilities are initially recorded and subsequently carried at fair value with changes in fair value recorded in other operating income (expense) within the operating results of the income statement.

Fair value through profit or loss – hedging instruments. These are derivative financial instruments that are used to manage the exposures to foreign currency, interest rate, equity market and credit risks. These instruments 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).

Other financial liabilities. These are non-derivative financial liabilities. Other financial liabilities are initially recorded at fair value, less transaction costs, and subsequently carried at amortised cost using the effective interest rate method. Other financial liabilities are mainly comprised of debt and trade payables.

Debt. Debt instruments are initially recorded at cost, which is the proceeds received, net of transaction costs. Subsequently they are reported at amortised cost. Any discount between the net proceeds received and the principal value due on redemption is amortised over the duration of the debt instrument and is recognised as part of financing costs using the effective interest rate method.

Derecognition. A financial asset is derecognised when the contractual 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 derecognised when the contractual obligations are discharged, cancelled or expire.

Impairment of financial assets

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

For trade and lease receivables the Group measures the allowance for doubtful accounts at an amount equal to lifetime ECL.

For debt securities carried at fair value through OCI and debt securities and other financial assets at amortised cost, which are determined to have low credit risk based on external credit ratings of the counterparties, the Group measures loss allowances at an amount equal to 12-month ECL. The Group considers debt securities 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 Standard & Poor's. When the credit risk of debt securities carried at fair value through OCI and debt securities and other financial assets at amortised cost has increased significantly since their initial recognition, the Group measures loss allowances at an amount equal to lifetime ECL. The Group assumes that the credit risk of such instruments have increased significantly if they are more than 30 days past due.

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, interest rate, equity market and credit risks. The instruments used may include interest rate swaps, forwards contracts and options. 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 eligibility of hedging and hedged instruments, formal designation and documentation, as well as 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).

Cash flow hedge. This is a hedge of the exposure to variability in cash flows that is attributable to a particular risk associated with a recognised asset or liability or a highly probable forecasted 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 forecasted transaction that 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. For all other cash flow hedges, 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.

Fair value hedge. This is a hedge of the exposure to changes in fair value of a recognised asset or liability, or an unrecognised firm commitment, or an identified portion of such an asset, liability or firm commitment, that is attributable to a particular risk and could affect profit or loss. The hedging instrument is recorded at fair value and the hedged item is recorded at its previous carrying value, adjusted for any changes in fair value that are attributable to the hedged risk. Changes in the fair values are reported in other financial income (expense).

Taxation

Income taxes include all taxes based upon the taxable profits of the Group, including withholding taxes payable on the distribution of retained earnings within the Group. Other taxes not based on income, such as business taxes and capital taxes, are included within selling, general and administration costs.

Liabilities for income taxes, mainly withholding taxes, which could arise on the remittance of retained earnings, principally relating to subsidiaries, are only recognised 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 recognised on temporary differences between the tax bases of assets and liabilities and their carrying values. Deferred tax assets are recognised to the extent that it is probable that future taxable profit will be available against which the unused tax losses can be utilised.

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. These instruments are held for the Group's potential conversion obligations that may arise from the Group's equity compensation plans.

Changes in accounting policies

In 2023 the Group has implemented various minor amendments to existing standards and interpretations, which have no material impact on the Group's overall results and financial position. In addition, the Group has adopted the amendments to IAS 12 'Income Taxes' relating to 'International Tax Reform – Pillar Two Model Rules' issued by the International Accounting Standards Board (IASB) in May 2023. The Group has applied the exception to recognising and disclosing information about deferred tax assets and liabilities related to Pillar Two income taxes.

Presentational and cost allocation changes

Presentational and cost allocation changes applied in 2023. Effective 1 January 2023, the Group has made certain presentational and cost allocation changes to the income statement. This has been done to improve external comparability and to reflect changes in the internal reporting for functions with global accountability.

- The income statement now presents 'Selling, general and administration' costs, which is created from merging 'Marketing and distribution' costs and 'General and administration' costs.
- The income statement now presents 'Other revenue' in place of 'Royalties and other operating income'. Other revenue mainly includes royalty income, profit-share income, other income from collaboration and out-licensing agreements and interest income from finance leases.
- The income statement now presents 'Other operating income (expense)' for non-revenue income and for expenses that do not fall into the regular functional costs. Amongst others, it includes income from disposal of product rights.
- Allocations from functions with global accountability such as informatics, human resources and finance are no longer made to the Pharmaceuticals and Diagnostics Divisions.

These changes have no impact on sales, operating profit, net income and earnings per share and non-voting equity security of the Group as a whole. The cost allocation changes will reduce costs allocated to divisions.

Comparative 2022 information has been restated. A reconciliation to the previously published results is provided below.

Restated Roche Group consolidated income statement (selected items) in millions of CHF

	Year ended 31 December 2022			
	As originally published	Presentational changes	Cost allocation changes	Restated
Group				
Sales	63,281	–	–	63,281
Royalties and other operating income – until 2022	3,145	(3,145)	–	–
Other revenue – new from 2023	–	2,533	–	2,533
Cost of sales	(20,397)	–	660	(19,737)
Marketing and distribution – until 2022	(9,639)	9,639	–	–
Research and development	(16,023)	–	798	(15,225)
General and administration – until 2022	(2,891)	2,891	–	–
Selling, general and administration – new from 2023	–	(12,743)	(1,458)	(14,201)
Other operating income (expense) – new from 2023	–	825	–	825
Operating profit	**17,476**	**–**	**–**	**17,476**
Pharmaceuticals				
Sales	45,551	–	–	45,551
Royalties and other operating income – until 2022	3,077	(3,077)	–	–
Other revenue – new from 2023	–	2,465	–	2,465
Cost of sales	(11,397)	–	357	(11,040)
Marketing and distribution – until 2022	(6,725)	6,725	–	–
Research and development	(14,060)	–	676	(13,384)
General and administration – until 2022	(1,632)	1,632	–	–
Selling, general and administration – new from 2023	–	(8,517)	919	(7,598)
Other operating income (expense) – new from 2023	–	772	–	772
Operating profit	**14,814**	**–**	**1,952**	**16,766**
Diagnostics				
Sales	17,730	–	–	17,730
Royalties and other operating income – until 2022	68	(68)	–	–
Other revenue – new from 2023	–	68	–	68
Cost of sales	(9,000)	–	303	(8,697)
Marketing and distribution – until 2022	(2,914)	2,914	–	–
Research and development	(1,963)	–	122	(1,841)
General and administration – until 2022	(597)	597	–	–
Selling, general and administration – new from 2023	–	(3,570)	400	(3,170)
Other operating income (expense) – new from 2023	–	59	–	59
Operating profit	**3,324**	**–**	**825**	**4,149**
Corporate				
General and administration – until 2022	(662)	662	–	–
Selling, general and administration – new from 2023	–	(656)	(2,777)	(3,433)
Other operating income (expense) – new from 2023	–	(6)	–	(6)
Operating profit	**(662)**	**–**	**(2,777)**	**(3,439)**

Consequently, the income from the disposal of products is included in the cash flows from investing activities. Comparative 2022 information has been restated, and a reconciliation to the previously published statement of cash flows is provided below.

Restated Roche Group consolidated statement of cash flows (selected items) in millions of CHF

	Year ended 31 December 2022		
	As originally published	Presentational changes	Restated
Disposal of products – until 2022	612	(612)	–
Total cash flows from operating activities	**18,415**	**(612)**	**17,803**
Disposal of products – new from 2023	–	612	612
Total cash flows from investing activities	**(3,536)**	**612**	**(2,924)**

Presentational changes to be applied in 2024. In October 2023 the Group announced that, effective 1 January 2024, the Foundation Medicine business will be moved under the responsibility of the Diagnostics Division from the Pharmaceuticals Division, while retaining Foundation Medicine's independence in this new reporting set-up. Accordingly from 1 January 2024 the results of the Foundation Medicine business will be reported as part of the Diagnostics Division, and this represents a change in the Group's operating segments in its financial reporting. These changes will have no impact on sales, operating profit, net income and earnings per share and non-voting equity security of the Group as a whole. The operating results of the divisions will change. No restatements have been made in these Annual Financial Statements for these changes. The changes will be applied retrospectively from 1 January 2024, and accordingly the 2023 results will be restated in the Interim and Annual Financial Statements in 2024.

Future new and revised standards

The Group is currently assessing the potential impacts of the various new and revised standards and interpretations that will be mandatory from 1 January 2024 which the Group has not yet applied. Based on an analysis to date, the Group does not anticipate that these will have a material impact on the Group's overall results and financial position. The Group is also assessing other new and revised standards which are not mandatory until after 2024.

Report of Roche Management on Internal Control over Financial Reporting

Report of Roche Management on Internal Control over Financial Reporting

The Board of Directors and management of Roche Holding Ltd are responsible for establishing and maintaining adequate control over financial reporting. The internal control system was designed to provide reasonable assurance over the reliability of financial reporting and the preparation and fair presentation of consolidated financial statements in accordance with International Financial Reporting Standards (IFRS Accounting Standards).

All internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective may not prevent or detect misstatements and can provide only reasonable assurance with respect to financial statement preparation and presentation. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions or that the degree of compliance with the policies or procedures may deteriorate.

Management assessed the effectiveness of its system of internal control over financial reporting as of 31 December 2023 based on the criteria for effective internal control over financial reporting described in *Internal Control – Integrated Framework 2013* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this assessment, management has concluded that the system of internal control over financial reporting was effective as of 31 December 2023.

The Statutory Auditor KPMG AG has audited the consolidated financial statements of Roche Holding Ltd for the year ended 31 December 2023 in accordance with Swiss Auditing Standards and with the International Standards on Auditing (ISA).

Severin Schwan
Chairman of the Board of Directors

Alan Hippe
Chief Financial Officer

Basel, 29 January 2024

KPMG

Statutory Auditor's Report

To the General Meeting of Roche Holding Ltd, Basel

Report on the Audit of the Consolidated Financial Statements

Opinion

We have audited the consolidated financial statements of Roche Holding Ltd and its subsidiaries (the Group), which comprise the consolidated income statement and consolidated statement of comprehensive income of the Group for the year ended 31 December 2023, the related consolidated balance sheet as at 31 December 2023, the consolidated statement of cash flows and changes in equity for the year then ended, and notes to the consolidated financial statements including material accounting policy information.

In our opinion, the consolidated financial statements (pages 46–161) give a true and fair view of the consolidated financial position of the Group as at 31 December 2023, its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with IFRS Accounting Standards and comply with Swiss law.

Basis for Opinion

We conducted our audit in accordance with Swiss law, International Standards on Auditing (ISAs) and Swiss Standards on Auditing (SA-CH). Our responsibilities under those provisions and 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 provisions of Swiss law, together with the requirements of the Swiss audit profession, as well as those of the International Ethics Standards Board for Accountants' International Code of Ethics for Professional Accountants (including International Independence Standards) (IESBA Code), 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

Chargebacks and rebates in the US pharmaceuticals business

Carrying value of product intangible assets not available for use in the Pharmaceuticals Division

Key audit matters are those matters that, in our professional judgement, 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.

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Chargebacks and rebates in the US pharmaceuticals business

Key Audit Matter

The Group's pharmaceuticals business makes sales to various customers in the US that fall under certain government and regulatory as well as contractual price reductions. These create obligations for the Group to provide customers with chargebacks or rebate payments and result in deductions from gross amounts invoiced in arriving at sales. The estimated amounts are deducted from gross sales and recorded as accrued liabilities (rebates), or as a deduction from accounts receivable (chargebacks). These estimates are based on analyses of existing contractual or legislatively mandated obligations, recent trends and historical experience.

Management has determined the accruals relating to chargebacks and rebates in the US pharmaceuticals business, predominantly contractual price reductions and Medicaid, to be CHF 1,622 million as at 31 December 2023.

We focused on this area because the arrangements are complex and because establishing an appropriate year-end position requires judgement and estimation by management.

Our response

Our audit procedures included, amongst others, the evaluation of the Group's ability to accurately estimate the accrual for chargebacks and rebates in the US pharmaceutical business by comparing deductions from gross sales to actual claims received from third parties. We developed an independent estimate of accruals and chargebacks related to certain contractual price reductions and Medicaid using the terms of specific rebate programmes and/or contracts with customers, historical revenue data, market demand and market conditions in the US, and historical trends of actual chargebacks and rebate claims paid, and compared the result to the Group's estimates.

We also evaluated the appropriateness of the Group's revenue recognition accounting policies, including the recognition and measurement of deductions to gross sales relating to chargebacks and rebates and related disclosures.

For further information on chargebacks and rebates in the US pharmaceuticals business refer to the following:

Page 52 (Note 1 General accounting principles – Key accounting judgements, estimates and assumptions), pages 59, 83 and 86 (Note 3 Revenue, Note 12 Accounts receivable and Note 19 Other current liabilities) and page 148 (Note 34 Accounting policies).

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Carrying value of product intangible assets not available for use in the Pharmaceuticals Division

Key Audit Matter

Product intangibles not available for use in the Pharmaceuticals Division (CHF 10,463 million) mostly represent in-process research and development assets. These were acquired through business combinations, asset acquisitions or in-licensing arrangements.

Due to the inherent uncertainties in the research and development processes, intangible assets not available for use are particularly at risk of impairment. Risks include an inability to achieve successful trial results, obtain required clinical and/or regulatory approvals and a highly competitive business environment in the therapeutic areas where the Group has significant assets in research or development.

The impairment assessment requires management to make assumptions and judgements on the clinical, technical and commercial viability of the new products. Accordingly, we also focused our audit work on these areas.

Our response

Our audit procedures included, amongst others, on a sample basis, challenging the robustness of the key assumptions used to determine the recoverable amounts, including forecast revenues and the discount rate.

Our challenge was based on our understanding of the commercial prospects of the individual products, as well as the relevant therapeutic areas and the markets in which they will be launched. We used our valuation specialists to assist us in evaluating the assumptions and methodologies used by management in relation to the discount rate. We assessed the key inputs such as projected pricing and volumes and the products' projected share of the therapeutic area, by comparing relevant assumptions to industry forecasts and by reviewing analyst commentaries. We compared management's assumptions with external data where it was available. We performed sensitivity analyses over individual intangible asset impairment models to assess the levels of sensitivity to changes in key assumptions so we could focus our work on those areas and assess management's allowance for risk. In addition, we assessed the reasonableness of management's assumptions regarding the probability of obtaining regulatory approval through comparison to industry practice, history and consideration of the Group's internal governance and approval processes.

For further information on the carrying value of product intangible assets not available for use in the Pharmaceuticals Division refer to the following:

Page 52 (Note 1 General accounting principles – Key accounting judgements, estimates and assumptions), page 78 (Note 10 Intangible assets) and page 148 (Note 34 Accounting policies).

Other Information

The Board of Directors is responsible for the other information. The other information comprises the information included in the finance report and the annual report, but does not include the consolidated financial statements, the stand-alone financial statements of the company, the remuneration report and our auditor's reports thereon.

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

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

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Board of Directors' Responsibilities for the Consolidated Financial Statements

The Board of Directors is responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with IFRS Accounting Standards and the provisions of Swiss law, and for such internal control as the Board of Directors 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, the Board of Directors is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Board of Directors either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

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 Swiss law, ISAs and SA-CH 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 an audit in accordance with Swiss law, ISAs and SA-CH, we exercise professional judgement and maintain professional scepticism 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, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.

— Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made.

— Conclude on the appropriateness of the Board of Directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.

— Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

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— Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.

We communicate with the Board of Directors or its relevant committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Board of Directors or its relevant committee 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, actions taken to eliminate threats or safeguards applied.

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

Report on Other Legal and Regulatory Requirements

In accordance with Art. 728a para. 1 item 3 CO and PS-CH 890, we confirm that an internal control system exists, which has been designed for the preparation of the consolidated financial statements according to the instructions of the Board of Directors.

We recommend that the consolidated financial statements submitted to you be approved.

KPMG AG

François Rouiller Licensed Audit Expert Auditor in Charge	Paul Nichols

Basel, 29 January 2024

Multi-Year Overview and Supplementary Information

Multi-year overview

Statistics, as reported

	2014	2015	2016	
Income statement in millions of CHF				
Sales	47,462	48,145	50,576	
EBITDA	19,558	19,479	20,483	
Operating profit	14,090	13,821	14,069	
Net income attributable to Roche shareholders	9,332	8,863	9,576	
Research and development	9,895	9,581	11,532	
Balance sheet in millions of CHF				
Non-current assets	44,426	47,581	48,149	
Current assets	31,114	28,182	28,670	
Total assets	75,540	75,763	76,819	
Non-current liabilities	(30,874)	(28,695)	(27,817)	
Current liabilities	(23,108)	(23,768)	(22,600)	
Total liabilities	(53,982)	(52,463)	(50,417)	
Net assets	21,558	23,300	26,402	
Capital and reserves attributable to Roche shareholders	19,586	20,979	23,911	
Equity attributable to non-controlling interests	1,972	2,321	2,491	
Additions to property, plant and equipment	2,905	4,077	3,790	
Personnel				
Number of employees at end of year	88,509	91,747	94,052	
Key ratios				
Net income attributable to Roche shareholders as % of sales	20	18	19	
Net income attributable to Roche shareholders as % of equity	48	42	40	
Research and development as % of sales	21	20	23	
Current ratio %	135	119	127	
Equity and non-controlling interests as % of total assets	29	31	34	
Human capital return on investment ratio	2.16	2.06	2.06	
Data on shares and non-voting equity securities				
Number of shares	160,000,000	160,000,000	160,000,000	
Number of non-voting equity securities (*Genussscheine*)	702,562,700	702,562,700	702,562,700	
Total shares and non-voting equity securities	862,562,700	862,562,700	862,562,700	
Total dividend in millions of CHF	6,901	6,987	7,073	
Earnings per share and non-voting equity security (diluted) in CHF	10.81	10.28	11.13	
Dividend per share and non-voting equity security in CHF	8.00	8.10	8.20	

Information in this table is stated as reported and changes in accounting policies arising from changes in IFRS Accounting Standards are not applied retrospectively.

2017	2018	2019	2020	2021	2022	2023
53,299	56,846	61,466	58,323	62,801	63,281	58,716
21,201	22,825	25,419	24,281	24,692	25,015	21,976
13,003	14,769	17,548	18,543	18,155	17,476	15,395
8,633	10,500	13,497	14,295	13,930	12,421	11,498
11,292	12,092	12,774	13,009	14,799	15,225	14,200
45,104	46,273	51,837	53,196	56,690	54,335	57,022
31,572	32,244	31,254	32,942	35,627	33,816	33,446
76,676	78,517	83,091	86,138	92,317	88,151	90,468
(25,509)	(25,118)	(23,105)	(20,964)	(25,556)	(28,897)	(32,381)
(22,160)	(23,033)	(24,119)	(25,401)	(38,416)	(27,239)	(24,824)
(47,669)	(48,151)	(47,224)	(46,365)	(63,972)	(56,136)	(57,205)
29,007	30,366	35,867	39,773	28,345	32,015	33,263
26,441	27,622	32,747	36,341	24,489	27,992	29,315
2,566	2,744	3,120	3,432	3,856	4,023	3,948
3,477	3,796	3,479	3,693	3,826	3,402	3,770
93,734	94,442	97,735	101,465	100,920	103,613	103,605
16	19	22	25	22	20	20
33	38	41	39	57	44	39
21	21	21	22	24	24	24
142	140	130	130	93	124	135
38	39	43	46	31	36	37
1.89	1.96	2.07	2.18	2.08	2.08	1.93
160,000,000	160,000,000	160,000,000	160,000,000	160,000,000	106,691,000	106,691,000
702,562,700	702,562,700	702,562,700	702,562,700	702,562,700	702,562,700	702,562,700
862,562,700	862,562,700	862,562,700	862,562,700	862,562,700	809,253,700	809,253,700
7,159	7,504	7,763	7,849	7,526	7,688	7,769[a]
10.04	12.21	15.62	16.52	16.20	15.37	14.31
8.30	8.70	9.00	9.10	9.30	9.50	9.60[a]

a) 2023 dividend proposed by the Board of Directors.

Sales by division in millions of CHF

	2019	2020	2021	2022	2023
Pharmaceuticals	48,516	44,532	45,041	45,551	44,612
Diagnostics	12,950	13,791	17,760	17,730	14,104
Total	**61,466**	**58,323**	**62,801**	**63,281**	**58,716**

Sales by geographical area in millions of CHF

	2019	2020	2021	2022	2023
Switzerland	590	670	731	683	679
Germany	3,050	3,323	4,292	3,295	2,867
Rest of Europe	9,654	9,780	11,375	10,326	9,703
Europe	**13,294**	**13,773**	**16,398**	**14,304**	**13,249**
United States	29,724	27,187	26,519	27,939	27,183
Rest of North America	985	882	915	1,101	837
North America	**30,709**	**28,069**	**27,434**	**29,040**	**28,020**
Latin America	2,858	2,393	2,746	2,870	2,971
Japan	4,545	4,156	4,999	5,695	4,374
Rest of Asia	8,701	8,614	9,749	9,852	8,890
Asia	**13,246**	**12,770**	**14,748**	**15,547**	**13,264**
Africa, Australia and Oceania	1,359	1,318	1,475	1,520	1,212
Total	**61,466**	**58,323**	**62,801**	**63,281**	**58,716**

Additions to property, plant and equipment by division in millions of CHF

	2019	2020	2021	2022	2023
Pharmaceuticals	1,864	2,141	2,134	1,694	1,970
Diagnostics	1,552	1,502	1,628	1,622	1,716
Corporate	63	50	64	86	84
Total	**3,479**	**3,693**	**3,826**	**3,402**	**3,770**

Additions to property, plant and equipment by geographical area in millions of CHF

	2019	2020	2021	2022	2023
Switzerland	754	754	857	639	561
Germany	459	515	635	668	612
Rest of Europe	339	345	344	278	309
Europe	**1,552**	**1,614**	**1,836**	**1,585**	**1,482**
United States	900	987	925	881	1,276
Rest of North America	3	2	2	3	5
North America	**903**	**989**	**927**	**884**	**1,281**
Latin America	120	106	116	138	192
Japan	502	668	609	456	448
Rest of Asia	367	291	293	299	323
Asia	**869**	**959**	**902**	**755**	**771**
Africa, Australia and Oceania	35	25	45	40	44
Total	**3,479**	**3,693**	**3,826**	**3,402**	**3,770**

Alternative Performance Measures

The financial information included in the Financial Review includes certain Alternative Performance Measures (APMs) which are not accounting measures as defined by IFRS Accounting Standards, in particular the core results, net working capital, net operating assets, free cash flow and constant exchange rates. These APMs should not be used instead of, or considered as alternatives to, the Group's consolidated financial results based on IFRS Accounting Standards. These APMs may not be comparable to similarly titled measures disclosed by other companies. All APMs presented in the Financial Review relate to the performance of the current year and comparative periods.

Core results

Core results allow for an assessment of both the Group's actual results as defined by IFRS Accounting Standards and the underlying performance of the business. The core results concept, which is used in the internal management of the business, is based on the IFRS results, with the following adjustments:

- Global restructuring plans (see Note 7) are excluded.
- Amortisation and impairment of intangible assets (see Note 10), with the exception of commercial software intangible assets, and impairment of goodwill (see Note 9) are excluded.
- Acquisition accounting and other impacts from the accounting for mergers and acquisitions (M&A) and alliance transactions (see Financial Review) are excluded.
- Discontinued operations (currently none) are excluded.
- Legal and environmental cases (see Financial Review) are excluded.
- Global issues outside the healthcare sector beyond the Group's control are excluded.
- Material treasury items such as major debt restructurings (currently none) are excluded.
- Pension plan settlements (see Note 26) are excluded.
- The tax benefit recorded under IFRS Accounting Standards in respect of equity compensation plans (ECPs), which varies according to the price of the underlying equity, is replaced by a normalised tax benefit, being the IFRS 2 expense multiplied by the applicable tax rate (see Note 5).

The Group's IFRS results, including the divisional breakdown, are reconciled to the core results in the tables below. The calculation of Core EPS is also given in the tables below. Additional commentary to the adjustment items is given in the Financial Review.

Core results reconciliation – 2023 in millions of CHF

	IFRS results	Global restruc-turing	Intangibles amort-isation	Intangibles impairment	M&A and alliance trans-actions	Legal and environ-mental cases	Pension plan settle-ments	Global issues	Normal-isation of ECP tax benefit	Core results
Sales	58,716	–	–	–	–	–	–	–	–	58,716
Other revenue	1,725	0	–	–	–	–	–	–	–	1,725
Cost of sales	(16,357)	548	375	183	0	–	–	–	–	(15,251)
Research and development	(14,200)	230	308	425	–	–	–	–	–	(13,237)
Selling, general and administration	(14,881)	1,335	28	0	–	–	–	–	–	(13,518)
Other operating income (expense)	392	(75)	–	591	19	(122)	0	–	–	805
Operating profit	**15,395**	**2,038**	**711**	**1,199**	**19**	**(122)**	**0**	**–**	**–**	**19,240**
Financing costs	(996)	0	–	–	6	10	–	–	–	(980)
Other financial income (expense)	(320)	–	–	–	0	–	–	–	–	(320)
Profit before taxes	**14,079**	**2,038**	**711**	**1,199**	**25**	**(112)**	**0**	**–**	**–**	**17,940**
Income taxes	(1,721)	(403)	(44)	(71)	(4)	39	0	0	68	(2,136)
Net income	**12,358**	**1,635**	**667**	**1,128**	**21**	**(73)**	**0**	**0**	**68**	**15,804**
Attributable to										
– Roche shareholders	11,498	1,626	664	1,123	21	(73)	0	0	68	14,927
– Non-controlling interests	860	9	3	5	–	0	0	0	–	877

Core results reconciliation – 2022 (restated)[a] in millions of CHF

	IFRS results	Global restruc-turing	Intangibles amort-isation	Intangibles impairment	M&A and alliance trans-actions	Legal and environ-mental cases	Pension plan settle-ments	Global issues	Normal-isation of ECP tax benefit	Core results
Sales	63,281	–	–	–	–	–	–	–	–	63,281
Other revenue	2,533	0	–	–	–	–	–	–	–	2,533
Cost of sales	(19,737)	295	555	1,472	0	–	–	–	–	(17,415)
Research and development	(15,225)	261	344	1,365	–	–	–	–	–	(13,255)
Selling, general and administration	(14,201)	400	34	0	–	–	–	–	–	(13,767)
Other operating income (expense)	825	13	–	0	(20)	(22)	0	–	–	796
Operating profit	**17,476**	**969**	**933**	**2,837**	**(20)**	**(22)**	**0**	**–**	**–**	**22,173**
Financing costs	(665)	0	–	–	(1)	(20)	–	–	–	(686)
Other financial income (expense)	(484)	–	–	–	(44)	–	–	–	–	(528)
Profit before taxes	**16,327**	**969**	**933**	**2,837**	**(65)**	**(42)**	**0**	**–**	**–**	**20,959**
Income taxes	(2,796)	(193)	(80)	(435)	(1)	8	0	0	68	(3,429)
Net income	**13,531**	**776**	**853**	**2,402**	**(66)**	**(34)**	**0**	**0**	**68**	**17,530**
Attributable to										
– Roche shareholders	12,421	761	849	2,402	(66)	(34)	0	0	68	16,401
– Non-controlling interests	1,110	15	4	0	–	0	0	0	–	1,129

a) Effective 1 January 2023, the Group has made certain presentational and cost allocation changes to the income statement. Details and a reconciliation to the previously published income statement are disclosed in Note 34 of the Annual Financial Statements. A reconciliation to the previously published core results is disclosed below.

Divisional core results reconciliation – 2023 in millions of CHF

	IFRS results	Global restruc-turing	Intangibles amort-isation	Intangibles impairment	M&A and alliance trans-actions	Legal and environ-mental cases	Pension plan settle-ments	Core results
Pharmaceuticals								
Sales	44,612	–	–	–	–	–	–	44,612
Other revenue	1,667	0	–	–	–	–	–	1,667
Cost of sales	(9,083)	316	241	183	0	–	–	(8,343)
Research and development	(12,352)	155	301	406	–	–	–	(11,490)
Selling, general and administration	(7,945)	721	9	0	–	–	–	(7,215)
Other operating income (expense)	233	(80)	–	591	14	0	0	758
Operating profit	**17,132**	**1,112**	**551**	**1,180**	**14**	**0**	**0**	**19,989**
Diagnostics								
Sales	14,104	–	–	–	–	–	–	14,104
Other revenue	58	0	–	–	–	–	–	58
Cost of sales	(7,274)	232	134	0	0	–	–	(6,908)
Research and development	(1,848)	75	7	19	–	–	–	(1,747)
Selling, general and administration	(3,042)	124	19	0	–	–	–	(2,899)
Other operating income (expense)	173	6	–	0	5	(124)	0	60
Operating profit	**2,171**	**437**	**160**	**19**	**5**	**(124)**	**0**	**2,668**
Corporate								
Selling, general and administration	(3,894)	490	–	–	–	–	–	(3,404)
Other operating income (expense)	(14)	(1)	–	–	0	2	0	(13)
Operating profit	**(3,908)**	**489**	**–**	**–**	**0**	**2**	**0**	**(3,417)**

Divisional core results reconciliation – 2022 (restated)[a] in millions of CHF

	IFRS results	Global restruc-turing	Intangibles amort-isation	Intangibles impairment	M&A and alliance trans-actions	Legal and environ-mental cases	Pension plan settle-ments	Core results
Pharmaceuticals								
Sales	45,551	–	–	–	–	–	–	45,551
Other revenue	2,465	0	–	–	–	–	–	2,465
Cost of sales	(11,040)	251	412	1,472	0	–	–	(8,905)
Research and development	(13,384)	263	336	1,365	–	–	–	(11,420)
Selling, general and administration	(7,598)	261	13	0	–	–	–	(7,324)
Other operating income (expense)	772	14	–	0	(6)	(16)	0	764
Operating profit	**16,766**	**789**	**761**	**2,837**	**(6)**	**(16)**	**0**	**21,131**
Diagnostics								
Sales	17,730	–	–	–	–	–	–	17,730
Other revenue	68	0	–	–	–	–	–	68
Cost of sales	(8,697)	44	143	0	0	–	–	(8,510)
Research and development	(1,841)	(2)	8	0	–	–	–	(1,835)
Selling, general and administration	(3,170)	34	21	0	–	–	–	(3,115)
Other operating income (expense)	59	0	–	0	(14)	(2)	0	43
Operating profit	**4,149**	**76**	**172**	**0**	**(14)**	**(2)**	**0**	**4,381**
Corporate								
Selling, general and administration	(3,433)	105	–	–	–	–	–	(3,328)
Other operating income (expense)	(6)	(1)	–	–	0	(4)	0	(11)
Operating profit	**(3,439)**	**104**	**–**	**–**	**0**	**(4)**	**0**	**(3,339)**

a) Effective 1 January 2023, the Group has made certain presentational and cost allocation changes to the income statement. Details and a reconciliation to the previously published income statement are disclosed in Note 34 of the Annual Financial Statements. A reconciliation to the previously published divisional core results is disclosed below.

Restated core results (selected items) – 2022 in millions of CHF

	Core results as originally published	Presentational changes	Cost allocation changes	Restated core results
				Year ended 31 December 2022
Group				
Sales	63,281	–	–	63,281
Royalties and other operating income – until 2022	3,145	(3,145)	–	–
Other revenue – new from 2023	–	2,533	–	2,533
Cost of sales	(18,075)	–	660	(17,415)
Marketing and distribution – until 2022	(9,546)	9,546	–	–
Research and development	(14,053)	–	798	(13,255)
General and administration – until 2022	(2,579)	2,579	–	–
Selling, general and administration – new from 2023	–	(12,309)	(1,458)	(13,767)
Other operating income (expense) – new from 2023	–	796	–	796
Operating profit	**22,173**	**–**	**–**	**22,173**
Pharmaceuticals				
Sales	45,551	–	–	45,551
Royalties and other operating income – until 2022	3,077	(3,077)	–	–
Other revenue – new from 2023	–	2,465	–	2,465
Cost of sales	(9,262)	–	357	(8,905)
Marketing and distribution – until 2022	(6,657)	6,657	–	–
Research and development	(12,096)	–	676	(11,420)
General and administration – until 2022	(1,441)	1,441	–	–
Selling, general and administration – new from 2023	–	(8,250)	926	(7,324)
Other operating income (expense) – new from 2023	–	764	–	764
Operating profit	**19,172**	**–**	**1,959**	**21,131**
Diagnostics				
Sales	17,730	–	–	17,730
Royalties and other operating income – until 2022	68	(68)	–	–
Other revenue – new from 2023	–	68	–	68
Cost of sales	(8,813)	–	303	(8,510)
Marketing and distribution – until 2022	(2,889)	2,889	–	–
Research and development	(1,957)	–	122	(1,835)
General and administration – until 2022	(583)	583	–	–
Selling, general and administration – new from 2023	–	(3,515)	400	(3,115)
Other operating income (expense) – new from 2023	–	43	–	43
Operating profit	**3,556**	**–**	**825**	**4,381**
Corporate				
General and administration – until 2022	(555)	555	–	–
Selling, general and administration – new from 2023	–	(544)	(2,784)	(3,328)
Other operating income (expense) – new from 2023	–	(11)	–	(11)
Operating profit	**(555)**	**–**	**(2,784)**	**(3,339)**

Core EPS (basic)

	2023	2022
Core net income attributable to Roche shareholders (CHF millions)	14,927	16,401
Weighted average number of outstanding shares and non-voting equity securities used to calculate basic earnings per share (millions) [29]	799	800
Core earnings per share (basic) (CHF)	**18.69**	**20.49**

Core EPS (diluted)

	2023	2022
Core net income attributable to Roche shareholders (CHF millions)	14,927	16,401
Increase in non-controlling interests' share of core net income, assuming all outstanding Chugai stock options exercised (CHF millions)	0	(1)
Net income used to calculate diluted earnings per share (CHF millions)	**14,927**	**16,400**
Weighted average number of outstanding shares and non-voting equity securities used to calculate diluted earnings per share (millions) [29]	**804**	**808**
Core earnings per share (diluted) (CHF)	**18.57**	**20.30**

Free cash flow

Free cash flow is used to assess the Group's ability to generate the cash required to conduct and maintain its operations. It also indicates the Group's ability to generate cash to finance dividend payments, repay debt and to undertake merger and acquisition activities. The free cash flow concept is used in the internal management of the business.

Operating free cash flow is calculated based on the IFRS operating profit and adjusted for certain non-cash items, movements in net working capital and capital expenditures (investments in property, plant and equipment and intangible assets as well as the principal portion of lease liabilities paid for leased assets). Operating free cash flow is different from cash flows from operating activities as defined by IAS 7 in that it includes capital expenditures (which are within the responsibility of divisional management) and excludes income taxes paid (which are not within the responsibility of divisional management). Cash outflows from defined benefit plans are allocated to the operating free cash flow based on the current service cost with the residual allocated to treasury activities.

Free cash flow is calculated as the operating free cash flow adjusted for treasury activities and taxes paid. Free cash flow is different from total cash flows as defined by IAS 7 in that it excludes dividend payments, cash inflows/outflows from financing activities such as issuance/repayment of debt, purchase/sale of marketable securities and cash inflows/outflows from mergers, acquisitions and divestments.

Operating free cash flow and free cash flow are calculated as shown in the tables below. Additional commentary to the adjustment items is given in the Financial Review.

Operating free cash flow reconciliation in millions of CHF

	2023	2022
Cash flows from operating activities (IFRS basis in accordance with IAS 7)	**16,095**	**17,803**
Add back		
– Income taxes paid	3,620	4,102
Deduct		
– Investments in property, plant and equipment	(3,742)	(3,449)
– Principal portion of lease liabilities paid	(339)	(405)
– Investments in intangible assets	(907)	(1,103)
– Disposal of property, plant and equipment	173	82
– Disposal of intangible assets	0	0
– Disposal of products	558	612
Pensions and other post-employment benefits		
– Add back total payments for defined benefit plans	743	655
– Deduct allocation of payments to operating free cash flow	(456)	(630)
Acquisition-related items, including transaction costs	23	6
Other operating items	0	0
Operating free cash flow	**15,768**	**17,673**

Effective 1 January 2023, certain line items in the statement of cash flows for 2022 have been reclassified following certain presentational changes the Group made. Details and a reconciliation to the previously published statement of cash flows are disclosed in Note 34 of the Annual Financial Statements.

Free cash flow reconciliation in millions of CHF

	2023	2022
Cash flows from operating activities (IFRS basis in accordance with IAS 7)	**16,095**	**17,803**
Deduct		
– Investments in property, plant and equipment	(3,742)	(3,449)
– Principal portion of lease liabilities paid	(339)	(405)
– Investments in intangible assets	(907)	(1,103)
– Disposal of property, plant and equipment	173	82
– Disposal of intangible assets	0	0
– Disposal of products	558	612
– Interest paid	(770)	(557)
Other operating items, including acquisition-related items	23	6
Other treasury items	197	52
Free cash flow	**11,288**	**13,041**

Effective 1 January 2023, certain line items in the statement of cash flows for 2022 have been reclassified following certain presentational changes the Group made. Details and a reconciliation to the previously published statement of cash flows are disclosed in Note 34 of the Annual Financial Statements.

Supplementary information used to calculate the divisional operating free cash flow is shown in the table below.

Divisional operating free cash flow information in millions of CHF

	Pharmaceuticals 2023	Pharmaceuticals 2022	Diagnostics 2023	Diagnostics 2022	Corporate 2023	Corporate 2022	Group 2023	Group 2022
Depreciation, amortisation and impairment								
Depreciation of property, plant and equipment	1,263	1,381	1,095	1,128	65	56	2,423	2,565
Depreciation of right-of-use assets	197	211	116	117	12	13	325	341
Amortisation of intangible assets	554	764	162	174	–	–	716	938
Impairment (reversal) of property, plant and equipment	277	108	73	15	0	0	350	123
Impairment (reversal) of right-of-use assets	319	5	0	0	0	0	319	5
Impairment of goodwill	591	0	0	0	–	–	591	0
Impairment of intangible assets	589	2,837	19	0	–	–	608	2,837
Total	**3,790**	**5,306**	**1,465**	**1,434**	**77**	**69**	**5,332**	**6,809**
Other adjustments								
Add back								
– Expenses for equity-settled equity compensation plans	634	560	113	102	83	76	830	738
– Net (income) expense for provisions	294	495	201	19	77	0	572	514
– Net (gain) loss from disposals	(619)	(606)	15	11	0	(9)	(604)	(604)
– Non-cash working capital and other items	336	138	302	331	1	0	639	469
Deduct								
– Utilisation of provisions	(800)	(743)	(202)	(244)	(30)	(61)	(1,032)	(1,048)
– Proceeds from disposals	681	618	49	49	1	27	731	694
Total	**526**	**462**	**478**	**268**	**132**	**33**	**1,136**	**763**
Operating profit cash adjustments	**4,316**	**5,768**	**1,943**	**1,702**	**209**	**102**	**6,468**	**7,572**

Effective 1 January 2023, the Group has made certain presentational and cost allocation changes to the income statement affecting the divisional expenses for equity-settled equity compensation plans included in this table. The comparative information for 2022 has been restated accordingly.

EBITDA

The Group does not use Earnings Before Interest, Tax, Depreciation and Amortisation (EBITDA) in either its internal management reporting or its external communications. In the opinion of the Group's management, operating free cash flow gives a more useful and consistent measurement of 'cash earnings' than EBITDA, which includes many non-cash items such as provisions, allowances for trade receivables and inventories, and certain non-cash entries arising from acquisition accounting and pension accounting. Operating free cash flow also includes the cash used for investments in property, plant and equipment, leased assets and intangible assets, whereas EBITDA excludes all costs and cash outflows for these items.

For the convenience of those readers who do use EBITDA, this is provided in the table below. As the starting point this uses the core results, which already exclude the amortisation and impairment of goodwill and intangible assets.

EBITDA (using core results) in millions of CHF

	Pharmaceuticals		Diagnostics		Corporate		Group	
	2023	2022	2023	2022	2023	2022	2023	2022
EBITDA								
Core operating profit	19,989	21,131	2,668	4,381	(3,417)	(3,339)	19,240	22,173
Depreciation and impairment of property, plant and equipment – Core basis	1,243	1,310	1,097	1,130	65	56	2,405	2,496
Depreciation and impairment of right-of-use assets – Core basis	198	211	116	117	12	13	326	341
Amortisation and impairment of commercial software intangible assets – Core basis	3	3	2	2	–	–	5	5
EBITDA	**21,433**	**22,655**	**3,883**	**5,630**	**(3,340)**	**(3,270)**	**21,976**	**25,015**
– Margin, % of sales	48.0	49.7	27.5	31.8	–	–	37.4	39.5

Effective 1 January 2023, the Group has made certain presentational and cost allocation changes to the income statement. Details and a reconciliation to the previously published income statement are disclosed in Note 34 of the Annual Financial Statements. A reconciliation to the previously published divisional core results is disclosed above.

Net operating assets

Net operating assets allow for an assessment of the Group's operating performance of the business independently from financing and tax activities. Net operating assets are calculated as property, plant and equipment, leased assets ('right-of-use assets'), goodwill, intangible assets, net working capital and long-term net operating assets minus provisions.

The calculation of the net operating assets disclosed in Note 2 of the Annual Financial Statements is shown in the tables below.

Net operating assets reconciliation – 2023 in millions of CHF

	Pharmaceuticals	Diagnostics	Corporate	Treasury and taxation	Group
Property, plant and equipment	14,423	6,997	304	–	21,724
Right-of-use assets	882	299	34	–	1,215
Goodwill	4,767	4,623	–	–	9,390
Intangible assets	13,258	1,570	–	–	14,828
Inventories	4,849	2,900	–	–	7,749
Provisions	(1,799)	(766)	(178)	–	(2,743)
Current income tax net liabilities	–	–	–	(1,913)	(1,913)
Deferred tax net assets	–	–	–	6,289	6,289
Defined benefit plan net liabilities	–	–	–	(3,360)	(3,360)
Lease liabilities	–	–	–	(1,573)	(1,573)
Marketable securities	–	–	–	5,134	5,134
Cash and cash equivalents	–	–	–	5,376	5,376
Debt	–	–	–	(29,209)	(29,209)
Other net assets (liabilities)					
– Net working capital	(1,403)	348	(487)	–	(1,542)
– Other long-term net operating assets	1,529	(33)	(2)	–	1,494
– Other	–	–	–	404	404
Total net assets	**36,506**	**15,938**	**(329)**	**(18,852)**	**33,263**

Net operating assets reconciliation – 2022 in millions of CHF

	Pharmaceuticals	Diagnostics	Corporate	Treasury and taxation	Group
Property, plant and equipment	15,788	7,016	271	–	23,075
Right-of-use assets	845	239	49	–	1,133
Goodwill	5,810	5,010	–	–	10,820
Intangible assets	7,866	1,819	–	–	9,685
Inventories	5,259	3,346	–	–	8,605
Provisions	(2,392)	(832)	(135)	–	(3,359)
Current income tax net liabilities	–	–	–	(2,874)	(2,874)
Deferred tax net assets	–	–	–	5,782	5,782
Defined benefit plan net liabilities	–	–	–	(3,604)	(3,604)
Lease liabilities	–	–	–	(1,193)	(1,193)
Marketable securities	–	–	–	4,776	4,776
Cash and cash equivalents	–	–	–	4,991	4,991
Debt	–	–	–	(25,351)	(25,351)
Other net assets (liabilities)					
– Net working capital	(1,468)	(78)	(337)	–	(1,883)
– Other long-term net operating assets	848	(2)	(3)	–	843
– Other	–	–	–	569	569
Total net assets	**32,556**	**16,518**	**(155)**	**(16,904)**	**32,015**

Net debt

Net debt is used to monitor the Group's overall short- and long-term liquidity. Net debt is calculated as the sum of total long-term and short-term debt less marketable securities, cash and cash equivalents.

Net debt calculations, including details of movements during the current year, are shown in the table on page 37 in the Financial Review.

Net working capital

Net working capital is used to assess the Group's efficiency in utilising assets and short-term liquidity. Net trade working capital is calculated as trade receivables and inventories minus trade payables. Net working capital is calculated as net trade working capital adjusted for other receivables and other payables.

Net working capital and net trade working capital calculations are shown in the tables on page 23 (Pharmaceuticals Division), page 29 (Diagnostics Division) and page 31 (Corporate) in the Financial Review.

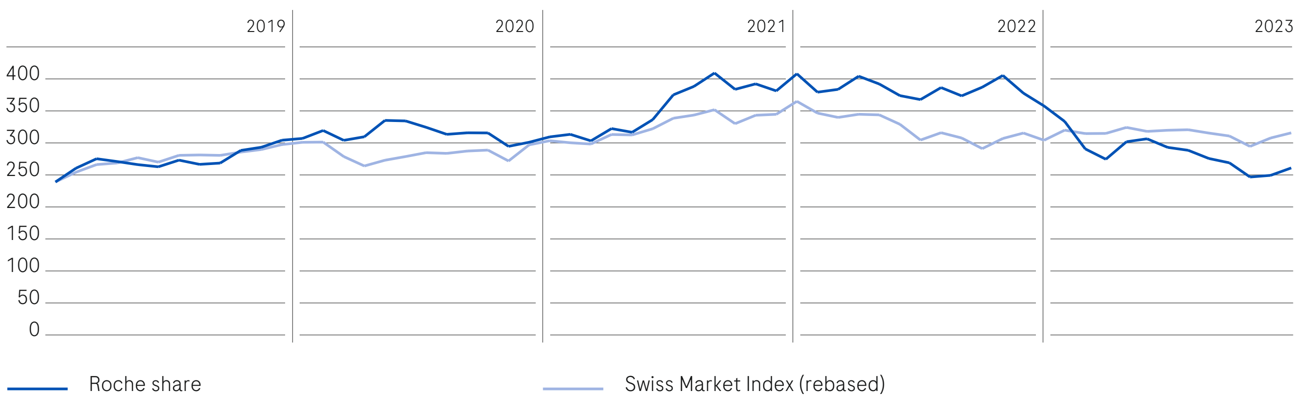
Constant exchange rates

Certain percentage changes in the Financial Review have been calculated using constant exchange rates (CER) which allow for an assessment of the Group's financial performance with the effects of exchange rate fluctuations eliminated. The percentage changes at constant exchange rates are calculated using simulations by reconsolidating both the current reported period and the prior period numbers at constant currency exchange rates, equalling the average exchange rates for the prior year. For example, a CER change between a 2023 line item and its 2022 equivalent is calculated using the average exchange rate for the year ended 31 December 2022 for both the 2023 line item and the 2022 line item and subsequently calculating the change in percent with respect to the two recalculated numbers.

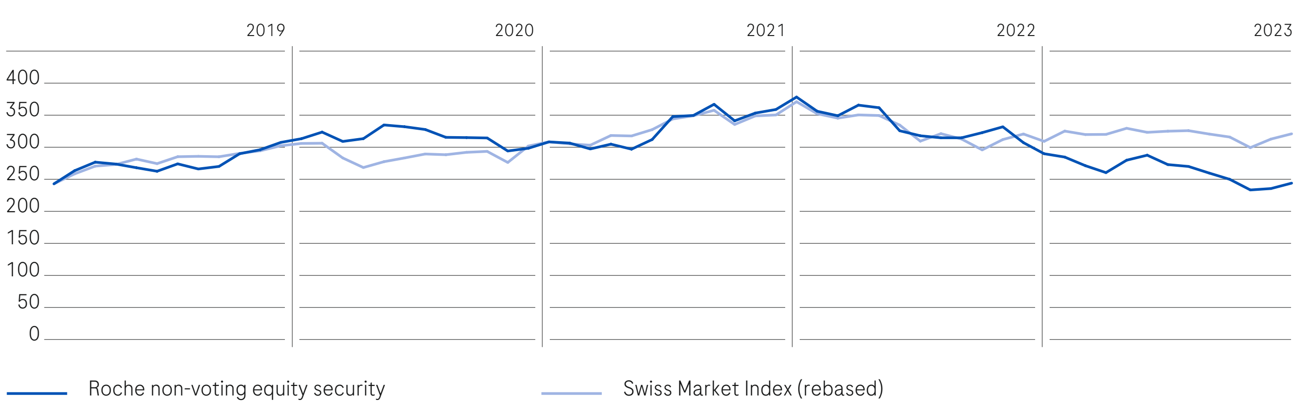
Foreign exchange gains and losses and the gains (losses) on the net monetary positions in hyperinflationary economies are excluded from the calculation of CER growth rates in the earnings per share disclosures. In countries where there is a significant devaluation in the local currency in the current year, the simulations use the average exchange rate of the current year instead of the prior year to avoid that CER growth rates are artificially inflated.

Roche Securities

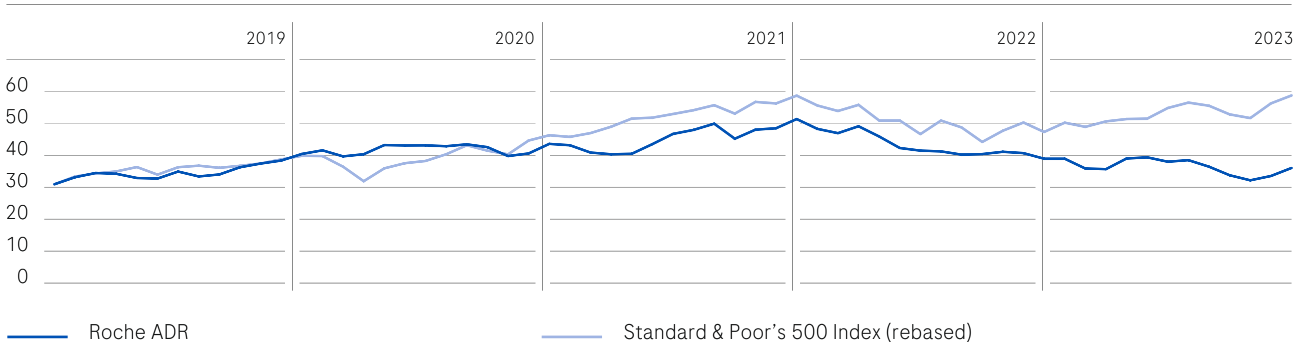
Price development of share in CHF



Price development of non-voting equity security *(Genussschein)* in CHF



Price development of American Depositary Receipt (ADR) in USD



Eight Roche American Depositary Receipts (ADRs) are equivalent to one non-voting equity security (*Genussschein*). ADRs have been traded in the US over-the-counter market since July 1992.

Number of shares and non-voting equity securities[a]

	2019	2020	2021	2022	2023
Number of shares (nominal value: CHF 1.00)	160,000,000	160,000,000	160,000,000	106,691,000	106,691,000
Number of non-voting equity securities (*Genussscheine*) (no nominal value)	702,562,700	702,562,700	702,562,700	702,562,700	702,562,700
Total issued	**862,562,700**	**862,562,700**	**862,562,700**	**809,253,700**	**809,253,700**
Number of own shares and non-voting equity securities (*Genussscheine*) held	(6,806,245)	(9,436,750)	(62,159,409)	(10,073,029)	(12,011,755)
Total outstanding	**855,756,455**	**853,125,950**	**800,403,291**	**799,180,671**	**797,241,945**

Following the closing of the share repurchase transaction on 6 December 2021, the number of own shares and non-voting equity securities (*Genussscheine*) held by the Roche Group at 31 December 2021 as summarised in the table above included 53,309,000 bearer shares which were cancelled in February 2022. Further details can be found in Note 22 of the Roche Group Consolidated Financial Statements.

Data per share and non-voting equity security in CHF

		2019	2020	2021	2022	2023
Earnings (basic)		15.77	16.73	16.38	15.52	14.40
Earnings (diluted)		15.62	16.52	16.20	15.37	14.31
Core earnings (basic)		20.35	19.40	20.04	20.49	18.69
Core earnings (diluted)		20.16	19.16	19.81	20.30	18.57
Equity attributable to Roche shareholders		38.27	42.60	30.60	35.03	36.77
Dividend		9.00	9.10	9.30	9.50	9.60[c]
Stock price of share[b]	Opening	239.40	307.60	310.00	408.80	358.40
	High	312.20	352.20	420.00	433.00	362.20
	Low	239.40	267.40	303.80	343.00	247.20
	Year-end	307.60	310.00	408.80	358.40	261.40
Stock price of non-voting equity security (*Genussschein*)[b]	Opening	243.40	314.00	309.00	379.10	290.50
	High	317.25	354.05	383.60	400.55	297.80
	Low	243.40	274.45	297.05	290.50	233.85
	Year-end	314.00	309.00	379.10	290.50	244.50

a) Each non-voting equity security (*Genussschein*) confers the same rights as any of the shares to participate in the available earnings and any remaining proceeds from liquidation following repayment of the nominal value of the shares and the participation certificate capital (if any). Shares and non-voting equity securities are listed on the SIX Swiss Exchange. Roche Holding Ltd has no restrictions as to ownership of its shares or non-voting equity securities.
b) All stock price data reflect daily closing prices.
c) 2023 dividend proposed by the Board of Directors.

Market capitalisation in millions of CHF

	2019	2020	2021	2022	2023
Year-end	267,684	263,776	306,601	239,405	196,720

Key ratios (year-end)

	2019	2020	2021	2022	2023
Dividend yield of shares in %	2.9	2.9	2.3	2.7	3.7
Dividend yield of non-voting equity securities (*Genussscheine*) in %	2.9	2.9	2.5	3.3	3.9
Price/earnings of shares	20	19	25	23	18
Price/earnings of non-voting equity securities (*Genussscheine*)	20	19	23	19	17

Stock codes

	Share	Non-voting equity security	American Depositary Receipt (ADR)
SIX Swiss Exchange	RO	ROG	–
Bloomberg	RO SW	ROG VX	RHHBY US
Reuters	RO.S	ROG.VX	RHHBY.PK

Roche Holding Ltd, Basel

Financial Statements

Balance sheet in millions of CHF

	31 December 2023	31 December 2022
Current assets		
Cash and cash equivalents	63	681
Marketable securities	50	133
Accounts receivable from Group companies	4,522	5,300
Other short-term receivables	1	1
Total current assets	**4,636**	**6,115**
Non-current assets		
Investments	8,582	9,088
Total non-current assets	**8,582**	**9,088**
Total assets	**13,218**	**15,203**
Short-term liabilities		
Accounts payable to Group companies	7	3
Interest-bearing liabilities to Group companies	0	2,547
Other short-term liabilities	13	59
Total short-term liabilities	**20**	**2,609**
Long-term liabilities		
Provisions	35	35
Total long-term liabilities	**35**	**35**
Total liabilities	**55**	**2,644**
Shareholders' equity		
Share capital	107	107
Non-voting equity securities (*Genussscheine*)	p. m.	p. m.
Legal retained earnings:		
– Statutory retained earnings reserves	300	300
– Reserves for own equity instruments held by subsidiaries	3,322	0
Available earnings:		
– Balance brought forward from previous year	1,142	937
– Net income for the year	8,292	11,215
Own equity instruments	0	0
Total shareholders' equity	**13,163**	**12,559**
Total shareholders' equity and liabilities	**13,218**	**15,203**

p. m. = pro memoria. Non-voting equity securities (*Genussscheine*) have no nominal value.

Income statement in millions of CHF

	Year ended 31 December 2023	2022
Income		
Income from investments (dividend income)	8,736	10,682
Other financial income		
– Interest income	13	24
– Income from marketable securities and other	9	83
Guarantee fee income from Group companies	63	67
Other income	57	558
Total income	**8,878**	**11,414**
Expenses		
Administration expenses	(41)	(49)
Other expenses	(521)	(71)
Financial expenses	(14)	(16)
Direct taxes	(10)	(63)
Total expenses	**(586)**	**(199)**
Net income	**8,292**	**11,215**

Notes to the Financial Statements

1. Principles and information on balance sheet and income statement items

Basis of preparation

The financial statements of Roche Holding Ltd, Basel, (the 'Company') have been prepared in accordance with the principles of Swiss Law on Accounting and Financial Reporting (32nd title of the Swiss Code of Obligations, 'CO'). Where not prescribed by law, the significant accounting and valuation principles applied are described below.

The Company has prepared its consolidated financial statements in accordance with a recognised accounting standard, the International Financial Reporting Standards (IFRS Accounting Standards). In accordance with the CO, the Company decided to forgo presenting additional information on audit fees in the notes as well as a cash flow statement.

Valuation methods and translation of foreign currencies

Marketable securities are reported at the lower of cost or market value. All other financial assets, including investments, are reported at cost less appropriate write-downs. Own equity instruments are recognised at cost and deducted from equity at the time of purchase. If the own equity instruments are sold, the gain or loss is recognised through the income statement. Assets and liabilities denominated in foreign currencies are translated into Swiss francs using year-end rates of exchange, except investments which are translated at historical rates. Transactions during the year which are denominated in foreign currencies are translated at the exchange rates effective at the relevant transaction dates. Resulting exchange gains and losses are recognised in the income statement with the exception of unrealised gains which are deferred.

Investments

The direct and indirect investments of the Company into subsidiaries are listed in Note 33 to the Roche Group Annual Financial Statements. This listing excludes Chugai's subsidiaries as well as companies that are not material, notably companies that are inactive, dormant or in liquidation. Ownership interests equal voting rights.

Own equity instruments, including treasury shares

Own equity instruments, including treasury shares, are recognised at the purchase price and deducted from shareholders' equity at the time of the purchase. In case of a resale, the gain or loss is recognised through other financial income or financial expenses. Upon cancellation of bearer shares repurchased, such shares are derecognised with a corresponding decrease of share capital for the nominal value of the cancelled shares and of available earnings for any exceeding amount. No dividend distributions are made for own equity instruments held by the Company, including treasury shares.

Taxes

Direct taxes include corporate income and capital taxes.

Other income

In 2022 other income related to a reversal of an allowance for a loan receivable and previously recorded impairments for investments. This other income included CHF 289 million from a release of hidden reserves which had already been taxed in prior years.

Other expenses

In 2023 and 2022 other expenses mainly consisted of an impairment for an investment due to a dividend payment.

2. Shareholders' equity

Share repurchase and share capital reduction

On 26 November 2021, an Extraordinary General Meeting of the Company's shareholders approved a share capital reduction by CHF 53.3 million from CHF 160.0 million to CHF 106.7 million through the cancellation of all such shares to be repurchased from Novartis. On 6 December 2021, the Company repurchased 53,309,000 bearer shares, with a nominal value of CHF 1.00 each, held by Novartis for a total consideration of CHF 19.0 billion. At 31 December 2021, the repurchased shares were reported as treasury shares at the repurchase price, excluding transaction costs. These shares were cancelled in February 2022 when the necessary legal procedures had been completed. Upon cancellation of these shares, the Company's share capital decreased by CHF 53.3 million from CHF 160.0 million to CHF 106.7 million. The reduction in the share capital became effective at the beginning of February 2022, with the entry of the share capital reduction in the commercial register of the Canton of Basel-Stadt on 3 February 2022 and the publication of the share capital reduction in the Swiss Official Gazette of Commerce on 8 February 2022. The CHF 19.0 billion bridge loan facility drawn in December 2021 to finance the share repurchase was fully repaid by May 2022. At 31 December 2021 the amount of the bridge loan facility outstanding was CHF 13.5 billion.

Share capital

Following the share capital reduction in 2022 as described above, at 31 December 2023 and 2022 share capital amounted to CHF 106.7 million. The share capital consists of 106,691,000 bearer shares with a nominal value of CHF 1.00 each, as in the preceding year. Included in equity are 702,562,700 non-voting equity securities (*Genussscheine*). They are not part of the share capital and confer no voting rights. However, each non-voting equity security confers the same rights as any of the shares to participate in the available earnings and in any remaining proceeds from liquidation following repayment of the nominal value of the share capital and, if any, participation certificates.

Own equity instruments, including treasury shares

At 31 December 2021 the Company held 53,309,000 bearer shares as treasury shares which had been repurchased for a total consideration of CHF 19.0 billion. The repurchase price, excluding transaction costs, was deducted from shareholders' equity. As described above, all the 53,309,000 bearer shares held as treasury shares were cancelled in February 2022 when the necessary legal procedures had been completed. At 31 December 2023 the Company did not hold any shares (2022: none). During 2023 and 2022 the Company neither purchased nor sold bearer shares.

At 31 December 2023 the Company did not hold any non-voting equity securities (2022: none). During 2023 and 2022 the Company neither purchased nor sold non-voting equity securities.

Article 659b of the revised Swiss Code of Obligations (CO) effective as of 1 January 2023 requires the creation of an additional legal reserve for own equity instruments held by subsidiaries over which the Company as parent company of the Roche Group has control, including foundations as included in the IFRS consolidation scope which did not qualify as subsidiaries under Article 659b CO effective on 31 December 2022. At 31 December 2023 such foundations held 519,667 bearer shares (2022: 19,811 bearer shares) and 11,492,088 non-voting equity securities (2022: 10,053,218 non-voting equity securities) at cost of CHF 3,756 million (2022: CHF 3,322 million). In accordance with Article 659b of the revised CO the Board of Directors will propose to the Annual General Meeting to increase the legal reserve for own equity instruments by CHF 434 million to CHF 3,756 million in the appropriation of available earnings.

Movement in recognised amounts in millions of CHF

		Legal retained earnings		Voluntary reserves				
	Share capital	Statutory retained earnings reserves	Reserves for own equity instruments held by subsidiaries	Free reserve	Special reserve	Available earnings	Own equity instruments	Total equity
As at 1 January 2021	160	300	0	6,000	2,152	9,014	0	17,626
Net income	–	–	–	–	–	18,087	–	18,087
Dividends	–	–	–	–	–	(7,849)	–	(7,849)
Transactions in own equity instruments	–	–	–	–	–	–	0	0
Share repurchase	–	–	–	–	–	–	(18,994)	(18,994)
As at 31 December 2021	**160**	**300**	**0**	**6,000**	**2,152**	**19,252**	**(18,994)**	**8,870**
Net income	–	–	–	–	–	11,215	–	11,215
Dividends	–	–	–	–	–	(7,526)	–	(7,526)
Release of free reserve and special reserve	–	–	–	(6,000)	(2,152)	8,152	–	0
Share capital reduction	(53)	–	–	–	–	(18,941)	18,994	0
Transactions in own equity instruments	–	–	–	–	–	–	0	0
As at 31 December 2022	**107**	**300**	**0**	**0**	**0**	**12,152**	**0**	**12,559**
Net income	–	–	–	–	–	8,292	–	8,292
Dividends	–	–	–	–	–	(7,688)	–	(7,688)
Transfer to legal reserve for own equity instruments	–	–	3,322	–	–	(3,322)	–	0
Transactions in own equity instruments	–	–	–	–	–	–	0	0
As at 31 December 2023	**107**	**300**	**3,322**	**0**	**0**	**9,434**	**0**	**13,163**

3. Contingent liabilities

Guarantees

The Company has issued guarantees for certain bonds and notes, commercial paper notes and credit facilities of Group companies. The nominal amount outstanding at 31 December 2023 was CHF 28.6 billion (2022: CHF 24.9 billion). These are described in Note 21 to the Roche Group Annual Financial Statements.

4. Significant shareholders

All shares in the Company are bearer shares, and for this reason the Company does not keep a register of shareholders. The following figures are based on information received from shareholders, the exercise of voting rights at the Annual General Meeting of 14 March 2023 and on other information available to the Company.

Controlling shareholders

At 31 December 2023, based on the information available to the Company, a shareholder group with pooled voting rights owned 69,318,000 shares representing 64.97% of the issued shares (31 December 2022: 72,018,000 shares representing 67.50% of the issued shares). On 5 December 2019 the shareholder group announced that it would continue the shareholder pooling agreement with a modified shareholder composition. This group consists now of Mr André Hoffmann, Ms Marie-Anne Hoffmann, Ms Vera Michalski, Mr Alexander Hoffmann, Mr Frederic Hoffmann, Ms Isabel Hoffmann, Mr Lucas Hoffmann, Ms Marina Hoffmann, Ms Kasia Barbotin-Larrieu, Ms Tatiana Fabre, Mr Andreas Oeri, Ms Catherine Oeri, Ms Sabine Duschmalé, Mr Jörg Duschmalé, Mr Lukas Duschmalé, the charitable Foundation Wolf and Artuma Holding LLC. The shareholder pooling agreement has existed since 1948. The duration of the pool was extended for an indefinite period in 2009. At 31 December 2023, based on the information available to the Group, Ms Maja Oeri, formerly a member of the pool, held 8,091,900 shares independently of the pool, representing 7.58% of the issued shares (31 December 2022: 8,091,900 shares representing 7.58% of the issued shares).

5. Full-time equivalent employees

The annual average number of full-time equivalent employees for 2023 and 2022 did not exceed ten people.

6. Board and Executive shareholdings

Board of Directors

Directors Mr André Hoffmann and Dr Jörg Duschmalé and certain other members of the founder's families who are closely associated with them belong to a shareholder group with pooled voting rights. At the end of 2023 this shareholder group held 69,318,000 shares (2022: 72,018,000 shares). Detailed information about this group is given in Note 4. In addition, at the end of the year the members of the Board of Directors and persons closely associated with them held shares and non-voting equity securities (*Genussscheine*) as shown in the table below.

Shareholdings of members of the Board of Directors

	Shares		Non-voting equity securities (*Genussscheine*)		Other
	2023	2022	2023	2022	
S. Schwan	244,786	215,956	97,876	91,966	
A. Hoffmann	0[a]	0[a]	200	200	
J. Duschmalé	0[a]	0[a]	0	0	
P. Frost	2,000	2,000	0	0	
A. Hauser	3,000	3,000	150	150	[c]
A. Iwasaki	0	n/a	0	n/a	
R. P. Lifton	0	0	0	0	[d]
J. Mahmood	0	0	0	0	
B. Poussot	500	500	500	500	
M. Schneider	2,500	n/a	2,500	n/a	
C. Suessmuth Dyckerhoff	0	0	2,710[b]	2,710[b]	
Total	**252,786**	**221,456**	**103,936**	**95,526**	

a) Does not include shares held in the shareholder group with pooled voting rights.
b) Jointly held with close relative.
c) Close relatives of A. Hauser held 20 non-voting equity securities (*Genussscheine*) (2022: 20).
d) Prof. Dr R. P. Lifton held 300 Roche American Depositary Receipts (ADRs) (2022: 300). Eight ADRs are equivalent to one non-voting equity security (*Genussschein*). ADRs have been traded in the US over-the-counter market since July 1992.

At 31 December 2023 Dr Severin Schwan held Stock-settled Stock Appreciation Rights (S-SARs) and Restricted Stock Units (RSUs) awarded in his former role as Chief Executive Officer as shown in the tables below. The terms and vesting conditions of these awards are disclosed in Note 27 to the Roche Group Annual Financial Statements and additional supplementary information is given in the Remuneration Report included in the Annual Report on pages 148 to 177. S-SARs and RSUs vest after four years (S-SAR awards granted before 2019 vested after three years). Thereafter, the non-voting equity securities and/or shares may remain blocked for up to ten years.

S-SARs awards held at 31 December 2023

Year of issue	2023	2022	2021	2020	2019	2018	2017	Total
S. Schwan (awarded in his former role as Chief Executive Officer)	115,095	75,635	100,746	103,260	122,322	100,677	85,476	703,211
Strike price (CHF)	263.65	359.70	306.45	308.05	271.65	220.80	251.90	
Expiry date	Mar. 2033	Mar. 2032	Mar. 2031	Mar. 2030	Mar. 2029	Mar. 2025	Mar. 2024	

RSU awards held at 31 December 2023

Year of issue	2023	2022	2021	2020	Total
S. Schwan (awarded in his former role as Chief Executive Officer)	4,046	2,965	3,481	3,463	13,955

Corporate Executive Committee

At the end of the year members of the Corporate Executive Committee and persons closely associated with them held shares and non-voting equity securities (*Genussscheine*) as shown in the table below.

Shareholdings of members of the Corporate Executive Committee

		Shares		Non-voting equity securities (*Genussscheine*)	Other
	2023	2022	2023	2022	
T. Schinecker	0	0	3,599	2,752	a)
T. Graham	0	n/a	6,459	n/a	a)
A. Hippe	6,970	6,970	43,124	40,390	a), b)
M. Sause	0	n/a	3,516	n/a	a)
C.A. Wilbur	0	0	16,010	14,640	a)
Total	**6,970**	**6,970**	**72,708**	**57,782**	

a) Equity compensation awards: S-SARs (Stock-settled Stock Appreciation Rights) and RSUs (Restricted Stock Units).
b) Close relatives of A. Hippe held 21 non-voting equity securities (*Genussscheine*) (2022: 21).

The remuneration from equity compensation plans to members of the Corporate Executive Committee is composed of 80% Stock-settled Stock Appreciation Rights (S-SARs) and 20% Restricted Stock Units (RSUs).

At 31 December 2023 members of the Corporate Executive Committee held S-SARs as shown in the table below. The terms and vesting conditions of these awards are disclosed in Note 27 to the Roche Group Annual Financial Statements and additional supplementary information is given in the Remuneration Report included in the Annual Report on pages 148 to 177. S-SARs awards granted to members of the Corporate Executive Committee vest after four years (awards granted before 2019 vested after three years).

S-SARs awards held at 31 December 2023

Year of issue	2023	2022	2021	2020	2019	2018	2017	Total
T. Schinecker	79,169	20,801	22,669	20,652	3,872	0	0	147,163
T. Graham	27,249	4,412	13,344	14,180	8,960	8,304	3,975	80,424
A. Hippe	42,224	30,255	40,300	41,304	48,930	40,275	2,191	245,479
M. Sause	26,389	4,020	4,256	3,105 *2,931*	0	0	0	40,701
C.A. Wilbur	26,390	18,910	25,187	25,815	29,052	21,402	16,032	162,788
Total	**201,421**	**78,398**	**105,756**	**107,987**	**90,814**	**69,981**	**22,198**	**676,555**
Strike price (CHF)	261.30	359.70	306.45	308.05 *335.45*	271.65	220.80	251.90	
Expiry date	Mar. 2033	Mar. 2032	Mar. 2031	Mar. 2030 *Apr. 2030*	Mar. 2029	Mar. 2025	Mar. 2024	

At 31 December 2023 members of the Corporate Executive Committee held RSUs as shown in the table below. The terms and vesting conditions of these awards are disclosed in Note 27 to the Roche Group Annual Financial Statements and additional supplementary information is given in the Remuneration Report included in the Annual Report on pages 148 to 177. RSU awards granted to members of the Corporate Executive Committee vest after four years. Thereafter, the non-voting equity securities and/or shares may remain blocked for up to ten years.

RSU awards held at 31 December 2023

Year of issue	2023	2022	2021	2020	Total
T. Schinecker	3,062	815	783	693	5,353
T. Graham	1,054	2,076	922	475	4,527
A. Hippe	1,633	1,186	1,392	1,385	5,596
M. Sause	1,021	1,890	1,176	1,076	5,163
C.A. Wilbur	1,021	741	870	866	3,498
Total	**7,791**	**6,708**	**5,143**	**4,495**	**24,137**

Information relating to the number and value of rights, options and awards granted to employees of the Roche Group and members of the Board of Directors and the Corporate Executive Committee of the Company are disclosed in Note 27 and Note 32 to the Roche Group Annual Financial Statements.

Appropriation of Available Earnings

Proposals to the Annual General Meeting in CHF

	2023	2022
Available earnings		
Balance brought forward from previous year	1,142,153,324	937,167,310
Net profit for the year	8,292,031,020	11,215,484,626
Transfer to legal reserve for own equity instruments held by subsidiaries[a]	(433,802,156)	(3,322,588,462)
Total available earnings	**9,000,382,188**	**8,830,063,474**
Appropriation of available earnings		
Distribution of an ordinary dividend of CHF 9.60 gross per share entitled to dividend and non-voting equity security (*Genussschein*) as against CHF 9.50 last year	(7,768,835,520)	(7,687,910,150)
Total appropriation of available earnings	**(7,768,835,520)**	**(7,687,910,150)**
To be carried forward on this account	**1,231,546,668**	**1,142,153,324**

a) Article 659b of the Swiss Code of Obligations (CO) requires the creation of an additional legal reserve for own equity instruments held by subsidiaries over which the Company as parent company of the Roche Group has control, including foundations as included in the IFRS consolidation scope.

Statutory Auditor's Report

To the General Meeting of Roche Holding Ltd, Basel

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of Roche Holding Ltd (the Company), which comprise the balance sheet as at 31 December 2023, and the income statement for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the financial statements (pages 184–194) comply with Swiss law and the Company's articles of incorporation.

Basis for Opinion

We conducted our audit in accordance with Swiss law and Swiss Standards on Auditing (SA-CH). Our responsibilities under those provisions and standards are further described in the 'Auditor's Responsibilities for the Audit of the Financial Statements' section of our report. We are independent of the Company in accordance with the provisions of Swiss law, together with the requirements of the Swiss audit profession 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 judgement, were of most significance in our audit of the financial statements of the current period. We have determined that there are no key audit matters to communicate in our report.

Other Information

The Board of Directors is responsible for the other information. The other information comprises the information included in the finance report and the annual report, but does not include the consolidated financial statements, the stand-alone financial statements of the Company, the remuneration report and our auditor's reports thereon.

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

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

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

KPMG

Board of Directors' Responsibilities for the Financial Statements

The Board of Directors is responsible for the preparation of the financial statements in accordance with the provisions of Swiss law and the Company's articles of incorporation, and for such internal control as the Board of Directors determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

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

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the 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 Swiss law and SA-CH 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 financial statements.

As part of an audit in accordance with Swiss law and SA-CH, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the 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, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made.
- Conclude on the appropriateness of the Board of Directors' 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 Company'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 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 Company to cease to continue as a going concern.

We communicate with the Board of Directors or its relevant committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Board of Directors or its relevant committee 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, actions taken to eliminate threats or safeguards applied.

From the matters communicated with the Board of Directors or its relevant committee, we determine those matters that were of most significance in the audit of the 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.

Report on Other Legal and Regulatory Requirements

In accordance with article 728a para. 1 item 3 CO and PS-CH 890, we confirm that an internal control system exists, which has been designed for the preparation of financial statements according to the instructions of the Board of Directors.

We further confirm that the proposed appropriation of available earnings complies with Swiss law and the Company's articles of incorporation. We recommend that the financial statements submitted to you be approved.

KPMG AG

François Rouiller
Licensed Audit Expert
Auditor in Charge

Paul Nichols

Basel, 29 January 2024

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Next Annual General Meeting:
12 March 2024

Cautionary statement regarding forward-looking statements

This Finance Report contains certain forward-looking statements. These forward-looking statements may be identified by words such as 'believes', 'expects', 'anticipates', 'projects', 'intends', 'should', 'seeks', 'estimates', 'future' or similar expressions or by discussion of, among other things, strategy, goals, plans or intentions. Various factors may cause actual results to differ materially in the future from those reflected in forward-looking statements contained in this Finance Report, among others: (1) pricing and product initiatives of competitors; (2) legislative and regulatory developments and economic conditions; (3) delay or inability in obtaining regulatory approvals or bringing products to market; (4) fluctuations in currency exchange rates and general financial market conditions; (5) uncertainties in the discovery, development or marketing of new products or new uses of existing products, including without limitation negative results of clinical trials or research projects, unexpected side effects of pipeline or marketed products; (6) increased government pricing pressures; (7) interruptions in production; (8) loss of or inability to obtain adequate protection for intellectual property rights; (9) litigation; (10) loss of key executives or other employees; and (11) adverse publicity and news coverage.

The statement regarding earnings per share growth is not a profit forecast and should not be interpreted to mean that Roche's earnings or earnings per share for 2024 or any subsequent period will necessarily match or exceed the historical published earnings or earnings per share of Roche.

Links to third-party pages are provided for convenience only. We do not express any opinion on the content of any third-party pages and expressly disclaim any liability for all third-party information and the use of it.

The Roche Finance Report is published in German and English. In case of doubt or differences of interpretation, the English version shall prevail over the German text.

Our reporting consists of the actual Annual Report and of the Finance Report and contains the annual financial statements and the consolidated financial statements.

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Sharing his journey with multiple sclerosis, Antoine helps us improve care for people with MS. Since 2019, serving as a patient expert, he has brought a valuable perspective to Roche, contributing to several significant outcomes.

Read his story on page 98 of the Annual Report.

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