



Consolidated financial statements

Annual results 2022



Consolidated financial statements

Contents

Consolidated income statements	3
Consolidated statements of comprehensive income	4
Consolidated balance sheets	6
Consolidated statements of cash flows	8
Consolidated statements of changes in equity	10
1. Basis of presentation	12
New accounting standards and amendments to published accounting standards	14
3. Summary of significant accounting policies	20
Critical accounting judgments and estimates	28
5. Acquisitions and divestments	32
6. Group investments	35
7. Group derivative financial instruments and hedge accounting	38
Liabilities for insurance contracts and reinsurers' share of liabilities for insurance contracts	42
9. Liabilities for investment contracts	48
10. Gross and ceded insurance revenues and expenses	50
11. Deferred policy acquisition costs and deferred origination costs	51

12. Expenses	52
13. Property and equipment	53
14. Attorney-in-fact contracts, goodwill and other intangible assets	56
15. Receivables and other assets	58
16. Other liabilities	59
17. Income taxes	61
18. Senior and subordinated debt	64
19. Shareholders' equity, dividends and earnings per share	66
20. Employee benefits	69
21. Share-based compensation and cash incentive plans	78
22. Commitments and contingencies, legal proceedings and regulatory investigations	80
23. Fair value measurement	82
24. Analysis of financial assets	89
25. Related-party transactions	93
26. Relationship with the Farmers Exchanges	94
27. Segment information	96
28. Interest in subsidiaries	111
29. Events after the balance sheet date	114
Report of the statutory auditor	116

Consolidated income statements

in USD millions, for the years ended December 31	Notes	2022	2021
Revenues			
Gross written premiums		56,118	53,185
Policy fees		2,730	2,592
Gross written premiums and policy fees		58,848	55,777
Less premiums ceded to reinsurers		(11,747)	(10,970)
Net written premiums and policy fees		47,101	44,806
Net change in reserves for unearned premiums	10	(2,569)	(1,776)
Net earned premiums and policy fees		44,532	43,031
Farmers management fees and other related revenues	26	4,490	4,265
Net investment income on Group investments		5,084	5,047
Net capital gains/(losses) and impairments on Group investments		(951)	2,038
Net investment result on Group investments	6	4,133	7,085
Net investment result on unit-linked investments		(12,405)	14,388
Net gains/(losses) on divestment of businesses	5	(288)	(185)
Other income		1,286	1,283
Total revenues		41,750	69,867
Benefits, losses and expenses			
Insurance benefits and losses, gross of reinsurance	10	34,576	34,470
Less ceded insurance benefits and losses	10	(6,372)	(6,186)
Insurance benefits and losses, net of reinsurance	10	28,204	28,284
Policyholder dividends and participation in profits, net of reinsurance	10	(11,791)	15,195
Underwriting and policy acquisition costs, net of reinsurance	10	9,873	9,213
Administrative and other operating expense	12	8,665	8,794
Interest expense on debt		434	469
Interest credited to policyholders and other interest		403	591
Total benefits, losses and expenses		35,787	62,546
Net income before income taxes		5,962	7,321
of which: Attributable to non-controlling interests		457	332
Income tax (expense)/benefit	17	(1,040)	(1,895)
attributable to policyholders	17	239	(275)
attributable to shareholders	17	(1,279)	(1,621)
of which: Attributable to non-controlling interests		(137)	(109)
Net income after taxes		4,923	5,425
attributable to non-controlling interests		319	223
attributable to shareholders		4,603	5,202
in USD			
Basic earnings per share	19	31.01	34.99
Diluted earnings per share	19	30.77	34.66
in CHF	20	30	350
Basic earnings per share	19	29.59	31.98
Diluted earnings per share	19	29.36	31.68
Diated carriings per strate	19	20.00	01.00

Consolidated statements of comprehensive income

Net income Spains Income Income Spains Income Income	in USD millions, for the years ended December 31				
Net income attributable attributable to shareholderson available-for-sale for-sale for-sale for-sale investmentsCash flow investments2021Comprehensive income for the period5,202(2,031)(114)Details of movements during the period5,202(2,031)(114)Change (before reclassification, tax and foreign currency translation effects and after allocation to policyholders)(669)(67)Reclassification to income statement (before tax, foreign currency translation effects and allocation to policyholders)(1,714)(54)Reclassification to retained earningsDeferred income tax (before foreign currency translation effects)45122Foreign currency translation effects(98)(15)2022Comprehensive income for the period4,603(10,650)(277)Details of movements during the period4,603(10,650)(277)Change (before reclassification, tax and foreign currency translation effects and after allocation to policyholders)(13,379)(259)Reclassification to income statement (before tax, foreign currency translation effects and allocation to policyholders)424(65)Reclassification to retained earnings424(65)Reclassification to retained earningsDeferred income tax (before foreign currency translation effects)2,47861			Net unrealized		
attributable to shareholdersfor-sale investmentsCash flow hedges2021Comprehensive income for the period5,202(2,031)(1.14)Details of movements during the period			gains/(losses)		
2021to shareholdersinvestmentshedgesComprehensive income for the period5,202(2,031)(114)Details of movements during the periodChange (before reclassification, tax and foreign currency translation effects and after allocation to policyholders)(669)(67)Reclassification to income statement (before tax, foreign currency translation effects and allocation to policyholders)(1,714)(54)Reclassification to retained earningsDeferred income tax (before foreign currency translation effects)45122Foreign currency translation effects(98)(15)2022Comprehensive income for the period4,603(10,650)(277)Details of movements during the period4,603(13,379)(259)Change (before reclassification, tax and foreign currency translation effects and after allocation to policyholders)(13,379)(259)Reclassification to income statement (before tax, foreign currency translation effects and allocation to policyholders)424(65)Reclassification to retained earningsDeferred income tax (before foreign currency translation effects)2,47861		Net income	on available-		
Comprehensive income for the period 5,202 (2,031) (114) Details of movements during the period Change (before reclassification, tax and foreign currency translation effects and after allocation to policyholders) Reclassification to income statement (before tax, foreign currency translation effects and allocation to policyholders) Reclassification to retained earnings Deferred income tax (before foreign currency translation effects) Possible of the period (1,714) (54) 22 Foreign currency translation effects (98) (15) 2022 Comprehensive income for the period (1,650) (277) Details of movements during the period (1,3,379) (259) Reclassification to income statement (before tax, foreign currency translation effects and after allocation to policyholders) Reclassification to income statement (before tax, foreign currency translation effects and allocation to policyholders) Reclassification to retained earnings Deferred income tax (before foreign currency translation effects) Reclassification to retained earnings Deferred income tax (before foreign currency translation effects) 2,478 61		attributable	for-sale	Cash flow	
Comprehensive income for the period Details of movements during the period Change (before reclassification, tax and foreign currency translation effects and after allocation to policyholders) Reclassification to income statement (before tax, foreign currency translation effects and allocation to policyholders) Reclassification to retained earnings Deferred income tax (before foreign currency translation effects) Foreign currency translation effects Change (before reclassification to policyholders) Comprehensive income for the period Change (before reclassification, tax and foreign currency translation effects) Reclassification to policyholders) Edition to retained earnings Change (before reclassification, tax and foreign currency translation effects and after allocation to policyholders) Reclassification to income statement (before tax, foreign currency translation effects and allocation to policyholders) Reclassification to retained earnings Deferred income tax (before foreign currency translation effects) 2,478 61		to shareholders	investments	hedges	
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Change (before reclassification, tax and foreign currency translation effects and after allocation to policyholders) (669) (67) Reclassification to income statement (before tax, foreign currency translation effects and allocation to policyholders) (1,714) (54) Reclassification to retained earnings	Comprehensive income for the period	5,202	(2,031)	(114)	
effects and after allocation to policyholders) Reclassification to income statement (before tax, foreign currency translation effects and allocation to policyholders) Reclassification to retained earnings Deferred income tax (before foreign currency translation effects) Foreign currency translation effects (98) (15) 2022 Comprehensive income for the period Change (before reclassification, tax and foreign currency translation effects and after allocation to policyholders) Reclassification to income statement (before tax, foreign currency translation effects and allocation to policyholders) Reclassification to retained earnings Deferred income tax (before foreign currency translation effects) 2,478 61	Details of movements during the period				
Reclassification to income statement (before tax, foreign currency translation effects and allocation to policyholders) Reclassification to retained earnings Deferred income tax (before foreign currency translation effects) Foreign currency translation effects Comprehensive income for the period Change (before reclassification, tax and foreign currency translation effects and after allocation to policyholders) Reclassification to income statement (before tax, foreign currency translation effects and allocation to policyholders) Reclassification to retained earnings Deferred income tax (before foreign currency translation effects) 2,478 61	Change (before reclassification, tax and foreign currency translation				
translation effects and allocation to policyholders) (1,714) (54) Reclassification to retained earnings — — — — — — — — — — — — — — — — — — —	effects and after allocation to policyholders)		(669)	(67)	
Reclassification to retained earnings Deferred income tax (before foreign currency translation effects) Foreign currency translation effects (98) (15) 2022 Comprehensive income for the period Change (before reclassification, tax and foreign currency translation effects and after allocation to policyholders) Reclassification to income statement (before tax, foreign currency translation effects and allocation to policyholders) Reclassification to retained earnings Deferred income tax (before foreign currency translation effects) 2,478 61	Reclassification to income statement (before tax, foreign currency				
Deferred income tax (before foreign currency translation effects) 451 22 Foreign currency translation effects (98) (15) 2022 Comprehensive income for the period 4,603 (10,650) (277) Details of movements during the period Change (before reclassification, tax and foreign currency translation effects and after allocation to policyholders) Reclassification to income statement (before tax, foreign currency translation effects and allocation to policyholders) Reclassification to retained earnings Deferred income tax (before foreign currency translation effects) 2,478 61	translation effects and allocation to policyholders)		(1,714)	(54)	
Foreign currency translation effects (98) (15) 2022 Comprehensive income for the period 4,603 (10,650) (277) Details of movements during the period Change (before reclassification, tax and foreign currency translation effects and after allocation to policyholders) (13,379) (259) Reclassification to income statement (before tax, foreign currency translation effects and allocation to policyholders) 424 (65) Reclassification to retained earnings Deferred income tax (before foreign currency translation effects) 2,478 61	Reclassification to retained earnings		_		
2022 Comprehensive income for the period 4,603 (10,650) (277) Details of movements during the period Change (before reclassification, tax and foreign currency translation effects and after allocation to policyholders) (13,379) (259) Reclassification to income statement (before tax, foreign currency translation effects and allocation to policyholders) 424 (65) Reclassification to retained earnings Deferred income tax (before foreign currency translation effects) 2,478 61	Deferred income tax (before foreign currency translation effects)		451	22	
Comprehensive income for the period 4,603 (10,650) (277) Details of movements during the period Change (before reclassification, tax and foreign currency translation effects and after allocation to policyholders) (13,379) (259) Reclassification to income statement (before tax, foreign currency translation effects and allocation to policyholders) 424 (65) Reclassification to retained earnings Deferred income tax (before foreign currency translation effects) 2,478 61	Foreign currency translation effects		(98)	(15)	
Comprehensive income for the period 4,603 (10,650) (277) Details of movements during the period Change (before reclassification, tax and foreign currency translation effects and after allocation to policyholders) (13,379) (259) Reclassification to income statement (before tax, foreign currency translation effects and allocation to policyholders) 424 (65) Reclassification to retained earnings Deferred income tax (before foreign currency translation effects) 2,478 61					
Details of movements during the period Change (before reclassification, tax and foreign currency translation effects and after allocation to policyholders) Reclassification to income statement (before tax, foreign currency translation effects and allocation to policyholders) Reclassification to retained earnings Deferred income tax (before foreign currency translation effects) (13,379) (259) (424 (65) 2,478 61	2022				
Change (before reclassification, tax and foreign currency translation effects and after allocation to policyholders) Reclassification to income statement (before tax, foreign currency translation effects and allocation to policyholders) Reclassification to retained earnings Deferred income tax (before foreign currency translation effects) (13,379) (259) (424 (65) 2478 61	Comprehensive income for the period	4,603	(10,650)	(277)	
effects and after allocation to policyholders) (13,379) (259) Reclassification to income statement (before tax, foreign currency translation effects and allocation to policyholders) 424 (65) Reclassification to retained earnings Deferred income tax (before foreign currency translation effects) 2,478 61	Details of movements during the period				
Reclassification to income statement (before tax, foreign currency translation effects and allocation to policyholders) Reclassification to retained earnings Deferred income tax (before foreign currency translation effects) 424 (65) (65) 2,478 61	Change (before reclassification, tax and foreign currency translation				
translation effects and allocation to policyholders) Reclassification to retained earnings Deferred income tax (before foreign currency translation effects) 424 (65) 2,478 61	effects and after allocation to policyholders)		(13,379)	(259)	
Reclassification to retained earnings – – Deferred income tax (before foreign currency translation effects) 2,478 61	Reclassification to income statement (before tax, foreign currency				
Deferred income tax (before foreign currency translation effects) 2,478 61	translation effects and allocation to policyholders)		424	(65)	
	Reclassification to retained earnings		_	_	
Foreign currency translation effects (173)	Deferred income tax (before foreign currency translation effects)		2,478	61	
	Foreign currency translation effects		(173)	(14)	

	Total comprehensive	Total	Total other	Total other comprehensive			Total other	Cumulative
	income	comprehensive	comprehensive	income			comprehensive	foreign
Total	attributable to	income	income	not recycled	Net actuarial		income	currency
comprehensive	non-controlling	attributable	attributable	through	gains/(losses)	Revaluation	recycled through	•
income	interests	to shareholders	to shareholders	profit or loss	on pension plans	reserve	profit or loss	adjustment
lilcome	interests	to shareholders	to shareholders	profit of loss	on pension plans	reserve	profit or loss	aujustinent
2,878	45	2,834	(2,368)	865	885	(19)	(3,234)	(1,088)
			(922)	895	886	8	(1,817)	(1,081)
			(1,775)	_	_	_	(1,775)	(7)
			(13)	(13)	_	(13)	_	
			423	(49)	(34)	(15)	472	
			(81)	33	33		(114)	
(7,258)	218	(7,477)	(12,080)	265	258	7	(12,345)	(1,418)
(7,200)		(7,177)	(12,000)		200	,	(±2,0 10)	(±, 1±0)
			(14,874)	173	164	10	(15,048)	(1,409)
			,- ,-				(-) /	(,)
			351	_	_	_	351	(8)
			_	_	_	_	_	_
			2,497	(42)	(39)	(2)	2,538	_
			(53)	134	134	_	(187)	

Consolidated balance sheets

Assets

in USD millions, as of December 31	Notes	2022	2021
Assets:			
Cash and cash equivalents		7,560	8,698
Total Group investments	6	140,625	190,959
Equity securities		13,130	18,578
Debt securities		103,664	145,084
Investment property		14,798	14,070
Mortgage loans		5,497	6,106
Other loans		3,444	7,053
Investments in associates and joint ventures		92	68
Investments for unit-linked contracts		121,989	142,470
Total investments		262,614	333,429
Reinsurers' share of liabilities for insurance contracts	8	25,667	25,680
Deposits made under reinsurance contracts		960	444
Deferred policy acquisition costs	11	20,711	20,446
Deferred origination costs	11	431	441
Receivables and other assets	15	21,768	19,951
Deferred tax assets	17	2,179	1,198
Assets held for sale ¹	5	22,152	11,626
Property and equipment	13	2,225	2,436
Attorney-in-fact contracts	14	2,650	2,650
Goodwill	14	4,420	4,344
Other intangible assets	14	4,445	4,484
Total assets		377,782	435,826

¹ As of December 31, 2022, the Group had USD 22.1 billion of assets held for sale based on agreements signed to sell portfolios of Zurich Deutscher Herold Lebensversicherung Aktiengesellschaft and Zurich Insurance plc (Spain Medical Malpractice and UK Employers' Liability portfolios) (see note 5). In 2021, the Group had USD 11.6 billion of assets held for sale portfolios of Zurich International Life Limited, Zurich Investments Life S.p.A. and Zurich Insurance plc (Spain Medical Malpractice and UK Employers' Liability portfolios) (see note 5).

Liabilities and equity

in USD millions, as of December 31	Notes	2022	2021
Liabilities			
Liabilities for investment contracts	9	57,456	68,855
Deposits received under ceded reinsurance contracts		857	970
Deferred front-end fees		4,560	5,124
Liabilities for insurance contracts	8	229,755	272,707
Obligations to repurchase securities		1,069	1,381
Other liabilities ¹	16, 22	18,017	16,009
Deferred tax liabilities	17	2,889	5,151
Liabilities held for sale ²	5	21,295	11,351
Senior debt	18	5,071	5,327
Subordinated debt	18	8,899	9,782
Total liabilities		349,868	396,656
Equity			
Share capital	19	11	11
Additional paid-in capital	19	1,158	1,449
Net unrealized gains/(losses) on available-for-sale investments		(6,980)	3,670
Cash flow hedges		134	411
Cumulative foreign currency translation adjustment		(10,824)	(9,633)
Revaluation reserve		272	265
Retained earnings		42,863	41,707
Shareholders' equity		26,634	37,881
Non-controlling interests		1,279	1,289
Total equity		27,914	39,170
Total liabilities and equity		377,782	435,826

Includes restructuring provisions, litigation and regulatory provisions and other provisions (see note 16).
 As of December 31, 2022, the Group had USD 21.3 billion of liabilities held for sale based on agreements signed to sell portfolios of Zurich Deutscher Herold Lebensversicherung Aktiengesellschaft and Zurich Insurance plc (Spain Medical Malpractice and UK Employers' Liability portfolios) (see note 5). In 2021, the Group had USD 11.4 billion of liabilities held for sale portfolios of Zurich International Life Limited, Zurich Investments Life S.p.A and Zurich Insurance plc (Spain Medical Malpractice and UK Employers' Liability portfolios) (see note 5).

Consolidated statements of cash flows

in USD millions, for the years ended December 31	2022	2021
Cash flows from operating activities		
Net income attributable to shareholders	4,603	5,202
Adjustments for:		
Net (gains)/losses on divestment of businesses	288	185
(Income)/expense from equity method accounted investments	4	4
Depreciation, amortization and impairments of fixed and intangible assets	804	849
Other non-cash items	(125)	(374)
Underwriting activities:	(10,693)	16,033
Liabilities for insurance contracts, gross	(3,206)	9,485
Reinsurers' share of liabilities for insurance contracts	(234)	(336)
Liabilities for investment contracts	(5,720)	7,676
Deferred policy acquisition costs	(886)	(889)
Deferred origination costs	(22)	(38)
Deposits made under assumed reinsurance contracts	(521)	56
Deposits received under ceded reinsurance contracts	(104)	79
Investments:	12,307	(17,857)
Net capital (gains)/losses on total investments and impairments	14,609	(14,918)
Net change in derivatives	(477)	432
Net change in money market investments	90	728
Sales and maturities		
Debt securities	51,589	42,492
Equity securities	53,190	53,695
Other	7,517	9,489
Purchases		
Debt securities	(54,925)	(48,985)
Equity securities	(51,407)	(51,580)
Other	(7,879)	(9,211)
Net changes in sale and repurchase agreements	(266)	615
Movements in receivables and payables	(2,055)	(2,059)
Net changes in other operational assets and liabilities	644	(75)
Deferred income tax, net	(434)	646
Net cash provided by/(used in) operating activities	5,079	3,167

in USD millions, for the years ended December 31	2022	2021
Cash flows from investing activities		
Additions to tangible and intangible assets	(572)	(576)
Disposals of tangible and intangible assets	54	155
(Acquisitions)/disposals of equity method accounted investments, net	_	(38)
Acquisitions of companies, net of cash acquired	(328)	(2,446)
Divestments of companies, net of cash divested	155	16
Dividends from equity method accounted investments	_	2
Net cash provided by/(used in) investing activities	(691)	(2,886)
Cash flows from financing activities		
Dividends paid	(3,767)	(3,534)
Net movement in treasury shares	(770)	(455)
Issuance of debt	2,551	2,664
Repayment of debt	(3,067)	(740)
Lease principal repayments	(220)	(227)
Net cash provided by/(used in) financing activities	(5,273)	(2,292)
Foreign currency translation effects on cash and cash equivalents	(290)	(386)
Change in cash and cash equivalents ¹	(1,174)	(2,396)
Cash and cash equivalents as of January 1	9,330	11,726
Total cash and cash equivalents as of December 31	8,155	9,330
of which: Cash and cash equivalents	7,560	8,698
of which: Unit-linked ²	596	632
Other supplementary cash flow disclosures ³		
Other interest income received	4,927	4,676
Dividend income received	1,439	1,737
Other interest expense paid	(890)	(955)
Income taxes paid	(1,469)	(1,486)

The movement for the period ended December 31, 2022 includes USD 51 million of cash and cash equivalents reclassified to assets held for sale, which has been recognized in net changes in other operational assets and liabilities (see note 5).
 These amounts are included within 'Investments for unit-linked contracts' on the balance sheet.
 These amounts are primarily included in the operating activities of the cash flow statement.

Cash and cash equivalents

in USD millions, as of December 31	2022	2021
Cash and cash equivalents comprise the following:		
Cash at bank and in hand	7,119	8,663
Cash equivalents	1,036	667
Total	8,155	9,330

For the periods ended December 31, 2022 and 2021, cash and cash equivalents held to meet local regulatory requirements were USD 407 million and USD 376 million, respectively.

Consolidated statements of changes in equity

		Additional
		paid-in
	Share capital	capital
Balance as of December 31, 2020 as previously reported	11	1,438
Issuance of share capital		
Dividends to shareholders		
Share-based payment transactions		12
Treasury share transactions		
of which: share buy-back program		
Change in ownership interests with no loss of control		
Cumulative foreign currency translation adjustment due to hyperinflation	_	_
Reclassification from revaluation reserves	_	_
Total comprehensive income for the period, net of tax	_	_
Net income	_	_
Net unrealized gains/(losses) on available-for-sale investments	_	_
Cash flow hedges	_	_
Cumulative foreign currency translation adjustment	_	_
Revaluation reserve	_	_
Net actuarial gains/(losses) on pension plans	_	_
Net changes in capitalization of non-controlling interests	_	_
Balance as of December 31, 2021	11	1,449
·		
Balance as of December 31, 2021 as previously reported	11	1,449
Issuance of share capital	_	_
Dividends to shareholders ¹	_	(233)
Share-based payment transactions	_	(58)
Treasury share transactions	_	_
of which: share buy-back program ²	_	_
Change in ownership interests with no loss of control	_	_
Cumulative foreign currency translation adjustment due to hyperinflation ³	_	_
Reclassification from revaluation reserves	_	_
Total comprehensive income for the period, net of tax	_	_
Net income	_	_
Net unrealized gains/(losses) on available-for-sale investments ⁴	_	_
Cash flow hedges	_	_
Cumulative foreign currency translation adjustment	_	_
Revaluation reserve	_	_
Net actuarial gains/(losses) on pension plans	_	_
Net changes in capitalization of non-controlling interests	_	_
Balance as of December 31. 2022	11	1.158
Duluito do di Doddinisti de, 2022		1,100

As approved by the Annual General Meeting on April 6, 2022, the dividend of CHF 22 per share was paid out of the capital contribution reserve and retained earnings on April 12, 2022 (see note 19).
 On August 11, 2022, it was announced that Zurich Insurance Group Ltd intends to repurchase up to CHF 1.8 billion of its registered shares under the public share buyback program. The program will run from November 21, 2022 until December 29, 2023. As of December 31, 2022, 829,830 shares had been bought back (see note 19).
 Current year effect of IAS 29 'Financial Reporting in Hyperinflationary Economies'.
 Net unrealized gains/(losses) on available-for-sale-investments have been impacted by recent adverse market events.

Net unrealized		Cumulative					
gains/(losses)		foreign					
on available-		currency				Non-	
for-sale	Cash flow	translation	Revaluation	Retained	Shareholders'	controlling	Total
investments	hedges	adjustment	reserve	earnings	equity	interests	equity
5,701	526	(8,698)	284	39,016	38,278	1,568	39,846
_	_	_					
_	_	_	_	(3,199)	(3,199)	(335)	(3,534)
_	_	_	_	(54)	(42)		(42)
_		_	_	(146)	(146)		(146)
_	_	_	_				
_	_	_	_	_			
_	_	153	_	(10)	143	12	155
_	_	_	_	13	13	_	13
(2,031)	(114)	(1,088)	(19)	6,087	2,834	45	2,878
_	_	_	_	5,202	5,202		
(2,031)	_	_	_	_	(2,031)		
_	(114)	_	_	_	(114)		
_	_	(1,088)	_	_	(1,088)		
_	_	_	(19)	_	(19)		
_	_	_	_	885	885		
_	_	_	_	_	_	_	_
3,670	411	(9,633)	265	41,707	37,881	1,289	39,170
3,670	411	(9,633)	265	41,707	37,881	1,289	39,170
_	_	_	_	_	_	_	_
_	_	_	_	(3,287)	(3,521)	(247)	(3,767)
_	_	_	_	(39)	(97)	_	(97)
_	_	_	_	(415)	(415)	_	(415)
_	_	_	_	(397)	(397)	_	(397)
_	_	_	_	_	_	_	_
_	_	227	_	36	263	21	285
_	_	_	_	_	_	_	_
(10,650)	(277)	(1,418)	7	4,861	(7,477)	218	(7,258)
_	_	_	_	4,603	4,603		
(10,650)	_	_	_	_	(10,650)		
_	(277)	_	_	_	(277)		
_	_	(1,418)	_	_	(1,418)		
-	_	_	7	_	7		
_	_	_	_	258	258		
_	_	_	_	_	_	(3)	(3)
(6,980)	134	(10,824)	272	42,863	26,634	1,279	27,914
· · · · · ·							

Zurich Insurance Group Ltd and its subsidiaries (collectively the Group) is a provider of insurance products and related services. The Group operates in Europe, Middle East & Africa (EMEA), North America, Latin America and Asia Pacific through subsidiaries, as well as branch and representative offices.

Zurich Insurance Group Ltd, a Swiss corporation, is the holding company of the Group and its shares are listed on the SIX Swiss Exchange. Zurich Insurance Group Ltd was incorporated on April 26, 2000, in Zurich, Switzerland. It is recorded in the Commercial Register of the Canton of Zurich under its registered address at Mythenquai 2, 8002 Zurich.

On February 8, 2023, the Board of Directors of Zurich Insurance Group Ltd authorized these consolidated financial statements for issue. These financial statements will be submitted for approval to the Annual General Meeting of Shareholders to be held on April 6, 2023.

1. Basis of presentation

General information

The consolidated financial statements of the Group have been prepared in accordance with International Financial Reporting Standards (IFRS) and comply with Swiss law. Where IFRS does not contain clear guidance governing the accounting treatment of certain transactions, including those that are specific to insurance and reinsurance products, IFRS permits reference to another comprehensive body of accounting principles that uses a similar conceptual framework. The Group's accounting policies for insurance and reinsurance contracts are therefore based on those developed by the Group before the adoption of IFRS 4 in areas where IFRS 4 did not include specific requirements. Before the adoption of IFRS 4 on January 1, 2005, the Group typically applied U.S. GAAP pronouncements issued by the Financial Accounting Standards Board (FASB) on insurance and reinsurance contracts. Any changes to such pronouncements subsequent to this adoption are not reflected in the Group's accounting policies. In case of business combinations, the Group may decide to maintain the local statutory treatment if this does not distort the fair presentation of the financial position of the Group. If significant, the impact of such cases would be described elsewhere in the notes to these consolidated financial statements.

The accounting policies applied by the reportable segments are the same as those applied by the Group. The Group accounts for inter-segment revenues and transfers as if the transactions were with third parties at current market prices. Dividends, realized capital gains and losses as well as gains and losses on the transfer of net assets are eliminated within the segment, whereas all other intercompany gains and losses are eliminated at Group level. In the consolidated financial statements, inter-segment revenues and transfers are eliminated.

Certain amounts recorded in the consolidated financial statements reflect estimates and assumptions made by management about insurance liability reserves, investment valuations, interest rates and other factors.

The Group continues to closely monitor and deal with the evolution of the COVID-19 pandemic, though most of the impacts on the Group's business are known and reflected in management's best estimates.

During 2022, most economies saw a continued rise in inflation further intensified by the war in Ukraine. Central banks have responded by tightening monetary policy, triggering a significant sell-off in equity and bond markets. Investment valuation and interest rates incorporate these market conditions as of December 31, 2022, and recoverability of intangible assets has been tested where the value of these intangible assets, including goodwill, is sensitive to prevailing market conditions. For more information on investments and fair value, please see note 6 and 23, respectively. For more information on intangible assets, please see note 14. The Group's exposure to Russia and Ukraine through its property & casualty operations and its investments portfolio is immaterial.

In 2022, following the announcement of the sale of its legacy traditional life insurance back book in Germany, the Group reclassified the related assets and liabilities as held for sale. Under IFRS 5, insurance assets and liabilities are not required to be remeasured upon reclassification. Upon reclassification, the Group considered the fact that the transaction is expected to close in 2023, after the Group will have adopted IFRS 17 retrospectively.

The Group considers various factors to determine whether an economy in a country where a foreign operation is situated is hyperinflationary. Any material translation adjustments resulting from initial application of the hyperinflationary accounting is recognized directly in equity.

The following balances are generally considered to be non-current: equity securities, investment property, investments in associates and joint ventures, deferred policy acquisition costs on life insurance contracts, deferred tax assets, property and equipment, goodwill, other intangible assets and deferred tax liabilities.

The following balances are mixed in nature (including both current and non-current portions): debt securities, mortgage loans, other loans, reinsurers' share of liabilities for insurance contracts, deposits made under assumed reinsurance contracts, deferred origination costs, other assets, reserves and investments for unit-linked contracts, liabilities for investment contracts, deposits received under ceded reinsurance contracts, deferred front-end fees, reserves for losses and loss adjustment expenses, reserves for unearned premiums, future life policyholder benefits, policyholder contract deposits and other funds, other liabilities, senior and subordinated debt and assets and liabilities held for sale.

Maturity tables have been provided for the following balances: debt securities (table 6.4), derivative assets and derivative liabilities (table 7.1), reserves for insurance contracts (tables 8.9a and 8.9b), liabilities for investment contracts (tables 9.3a and 9.3b), finance lease receivables (table 13.6), operating lease payments to be received (table 13.7), other financial liabilities (table 16.2), lease liabilities (table 16.3), outstanding debt (table 18.2) and future benefit payments for major pension plans (table 20.6).

All amounts in the consolidated financial statements, unless otherwise stated, are shown in U.S. dollars, rounded to the nearest million with the consequence that the rounded amounts may not add to the rounded total in all cases. All ratios and variances are calculated using the underlying amounts rather than the rounded amounts.

Table 1 summarizes the principal exchange rates used for translation purposes. Net gains/(losses) on foreign currency transactions included in the consolidated income statements were USD (137) million and USD (158) million for the years ended December 31, 2022 and 2021, respectively. Foreign currency exchange forward and swap gains/(losses) included in these amounts were USD (410) million and USD (56) million for the years ended December 31, 2022 and 2021, respectively.

Table 1

Principal exchange rates

USD per foreign currency unit			Consol	idated income	
	Consolidate	d balance sheets	statements and cash flov		
	at end-of-perio	d exchange rates	at average exchange rate		
	12/31/22	12/31/21	12/31/22	12/31/21	
Euro	1.0684	1.1373	1.0538	1.1831	
Swiss franc	1.0813	1.0969	1.0482	1.0941	
British pound	1.2049	1.3539	1.2372	1.3758	
Brazilian real	0.1894	0.1793	0.1940	0.1856	
Australian dollar	0.6797	0.7272	0.6950	0.7515	
Japanese yen	0.0076	0.0087	0.0077	0.0091	

2. New accounting standards and amendments to published accounting standards Standards, amendments and interpretations effective or early-adopted as of January 1, 2022, and relevant for the Group's operations

Table 2.1 shows new accounting standards or amendments to, and interpretations of, standards relevant to the Group that have been implemented for the financial year beginning January 1, 2022, with no impact on the Group's financial position or performance. Amendments resulting from the annual improvements to IFRS Standards 2018 – 2020 have no impact on the Group's financial statements.

Table 2.1

Standard/ Interpretation

		Effective date
Amended stand	lards	
IFRS 3	Reference to Conceptual Framework	January 1, 2022
IAS 16	Property, Plant and Equipment: Proceeds before Intended Use	January 1, 2022
IAS 37	Onerous Contracts – Cost of Fulfilling a Contract	January 1, 2022

Standards, amendments and interpretations issued that are not yet effective or adopted by the Group

Table 2.2 shows new accounting standards or amendments to, and interpretations of, standards relevant to the Group, which are not yet effective or adopted by the Group.

Table 2.2

Standard/ Interpretation

		Effective date
New standards/inte	rpretations	
IFRS 9	Financial Instruments	January 1, 2023
IFRS 17	Insurance Contracts	January 1, 2023
Amended standards	S	
IFRS 17	Initial Application of IFRS 17 and IFRS 9 - Comparative Information	January 1, 2023
IAS 1	Disclosure of Accounting Policies	January 1, 2023
IAS 8	Definition of Accounting Estimates	January 1, 2023
IFRS 16	Lease Liability in a Sale and Leaseback	January 1, 2024
IAS 1	Classification of Liabilities as Current or Non-current	January 1, 2024
IAS 1	Non-current Liabilities with Covenants	January 1, 2024

IFRS 17 'Insurance Contracts' and IFRS 9 'Financial Instruments'

IFRS 17 'Insurance Contracts' provides a comprehensive guidance on accounting for (re-) insurance contracts and investment contracts with discretionary participation features and has a significant impact on accounting for (re-) insurance contracts, including changes to the presentation of the insurance revenue and insurance service result. For long-duration life insurance contracts, IFRS 17 requires a significant change to actuarial modeling as granular cash flow projections, and regular updates of all assumptions will be required resulting in either profit or loss volatility or affecting 'contractual service margin (CSM)'. CSM is presented as a separate component of the insurance liability representing unearned profits from in-force contracts. IFRS 17 further introduces a risk adjustment for non-financial risk, a separate component of the insurance liability covering uncertainty in the amount and timing of future cash flows. Thus, the insurance liabilities will be composed of the current best estimate present value of future cash flows (PVFCF), risk adjustment and CSM.

IFRS 17 introduces different measurement models in calculating (re-)insurance contract liabilities reflecting the different extents of policyholder participation in investment or insurance entity performance: non-participating or indirect participating (general model or the building block approach (BBA)) and direct participating (variable fee approach (VFA)). For short-duration contracts, IFRS 17 permits a simplified approach (premium allocation approach (PAA)), which can be applied to contracts that have a coverage period of 12 months or less or for which such simplification would produce a measurement of the liability for remaining coverage that would not differ materially from the one that would be produced applying the BBA. The simplification allows the liability for remaining coverage to be measured primarily based on premium received, less earned premium and unamortized acquisition cash flows, rather than to be disaggregated into PVFCF, risk adjustment and CSM. The liability for incurred claims is measured consistently with the BBA, whereby all the incurred claims are subject to discounting and risk adjustment.

IFRS 17 will also affect the presentation of the revenue from insurance contracts, which will no longer include gross written premium or investment components. Furthermore, the insurance revenue and insurance service expenses will be presented gross of reinsurance, with the reinsurance result included in the net expenses from reinsurance contracts held. The (re-)insurance contract liabilities are subject to discounting; the unwind of the discount will be part of the (re-) insurance finance income or expenses, rather than insurance service result. For the majority of its in-force (re-)insurance contracts, except for unit-linked insurance contracts, the Group will apply the option in IFRS 17 to disaggregate the (re-)insurance finance income or expense between profit or loss and other comprehensive income (OCI). Under this option, the unwind of discount in profit or loss is based on locked-in discount rates and the difference in valuation due to changes in discount rates is presented in OCI.

The Group will apply bottom-up discount rates for most groups of (re-)insurance contracts. Bottom-up discount rates are constructed using risk-free rates, plus an illiquidity premium, where applicable. Risk-free rates are determined by reference to the market interest rates (either swap rates or yields of highly liquid sovereign securities) in the currency of the respective (re-)insurance contract liabilities. Whenever the duration of the liabilities exceeds the liquid part of the yield curve in the respective currency (the last liquid point), the risk-free interest rate is extrapolated to converge towards a long-term rate (the ultimate forward rate) using widely accepted extrapolation techniques (Smith-Wilson algorithm). The illiquidity premium is determined by reference to observable market spreads for illiquid instruments (e.g., corporate debt, etc.) adequately corrected to remove credit risk.

The Group will estimate the risk adjustment using a confidence level approach taking into account the Group's internal view of the level of capital required in order to continue operating on a going concern basis based on the Group's target Swiss Solvency Test (SST) ratio. The risk adjustment is calibrated as the value at risk (VaR) at the defined target confidence level minus the expected value of the future cash flows using the simulations of the distribution of the future cash flows. This distribution is based on the SST framework and model, with a few modifications considering the different purpose of the IFRS 17 risk adjustment. Separate target confidence levels will apply to the distribution of cash flows of long-duration (predominantly life) and short-duration (predominantly non-life) (re-)insurance contracts. We expect the confidence levels to fall within the following ranges: 74–79% for short-duration and 90–95% for long-duration (re-)insurance contracts. The Group will disaggregate the change in the risk adjustment for non-financial risk between the insurance service result and (re-)insurance finance income or expenses, and the latter between profit or loss and OCI, so that the movement in risk adjustment resulting from changes in discount rates is presented in OCI.

The Group will allocate the CSM at the end of the reporting period based on the underlying coverage units. The coverage units represent the quantity of (re-)insurance contract services provided by the contracts in the group, determined by considering for each contract the quantity of the benefits provided under a contract and its expected coverage period. The sum assured (or annuity) in force is considered as the main driver for determining coverage units for insurance service under BBA. Whenever the Group provides both insurance service and investment-related or investment-return service to the policyholders, the coverage units are appropriately weighted to reflect both services to allocate the CSM over the current and remaining coverage period, whereby the assets under management (or equivalent) are considered as the main driver for determining coverage units for investment-related or investment-return service. The CSM allocated to coverage units provided in the period will be recognized in profit or loss.

As IFRS 17 is applied retrospectively, the Group determined the transition approach at a group of insurance contracts level, depending on availability of reasonable and supportable historic information. The selected transition approach affected the measurement of the CSM on initial adoption of IFRS 17:

- Fully retrospective approach the CSM is based on initial assumptions when groups of contracts were incepted and rolled forward to the date of transition as if IFRS 17 had always been applied;
- Modified retrospective approach the CSM is calculated using modifications allowed by IFRS 17 taking into account the actual pre-transition fulfilment cash flows; and
- Fair value approach the CSM at transition is calculated as the difference between the fair value of a group of contracts, without the consideration of the demand deposit floor requirement, and the respective fulfilment cash flows measured at the transition date.

When a fully retrospective approach was considered impracticable due to lack of historical data or application of hindsight, the Group chose between a modified retrospective approach or a fair value approach. The Group applied a retrospective transition approach whenever practical, with more than 80 percent of CSM of groups of (re-)insurance contracts following either a full retrospective or modified retrospective approach.

In applying the modified retrospective and fair value approach for certain groups of non-life and life (re-)insurance contracts prior to the transition date, the Group used the modifications allowed under IFRS 17, such as grouping contracts issued more than 1 year apart into a single group for measurement purposes or applying interest rates as at transition date and setting the cumulative amount of (re-)insurance finance income or expenses recognized in other comprehensive income to nil.

IFRS 9 'Financial Instruments' introduces a classification and measurement concept for financial assets that is based on the contractual cash flow characteristics and the holding intent. Under IFRS 9, all equity securities and fund investments, and some debt instruments will be measured at fair value through profit or loss when the characteristics of the contractual cash flows from such instruments are not solely payments of principal and interest (SPPI) on the principal amount outstanding. Though IFRS 9 introduces an option to account for some equity securities at fair value through other comprehensive income (OCI) with no recycling of gains or losses through profit or loss, the Group does not intend to make material use of this option. The debt instruments that are not measured at fair value through profit or loss will be measured at fair value with changes in fair value recorded in OCI, if held under the standard business model to collect contractual cash flows and for sale, or at amortized cost, if part of selected portfolios that are held to collect contractual cash flows. Furthermore, IFRS 9 introduces a requirement to recognize expected credit losses for financial assets carried at amortized cost or at fair value, with changes in fair value recognized in OCI.

Though overall profit or loss volatility is expected to increase under IFRS 9, the measurement approach for direct participating contracts in IFRS 17 allows such volatility to be largely absorbed in the measurement of insurance liabilities with an option to reflect the effect of any asset-liability mismatch in shareholders' equity (OCI). Therefore, the Group decided to defer the full implementation of IFRS 9 until IFRS 17 becomes effective to better align the measurement approaches for the financial assets held and the (re-)insurance contract liabilities where appropriate. Based on the analysis performed as of December 31, 2015, the Group was eligible to apply the temporary exemption from the adoption of IFRS 9 for reporting entities that have not previously applied any version of IFRS 9 and whose activities are predominantly related to insurance, as the predominance ratio reflecting the share of liabilities connected with insurance to total liabilities exceeded 90 percent. No reassessment of eligibility was required during subsequent annual periods up to and including 2022 as there was no significant change in the activities performed by the Group. We refer to the Annual Report 2016 for further details on the eligibility assessment. The Group presents additional disclosures of indicative effects from adoption of IFRS 9 required by IFRS 4 'Applying IFRS 9 with IFRS 4' during the period of deferral in note 24.

Preliminary effects of the transition to IFRS 17 on January 1, 2022

In order to adopt IFRS 17 and IFRS 9 in the consolidated financial statements, a joint IFRS 17 and IFRS 9 Group Implementation Program sponsored by the Group Chief Financial Officer has been operating since 2017. The Program made significant progress in 2022 to ensure operational readiness and financial analysis for the opening balance sheet reporting as of the transition date of January 1, 2022, which is the starting point for the comparative period information required by IFRS 17.

The Group adopts IFRS 17 retrospectively, and restates the comparative period of 2022; however, no restatement will be performed for the effects of the initial application of IFRS 9. IFRS 17 allows a transition option that permits an entity to apply a classification overlay for IFRS 9 in the comparative period presented on initial application of IFRS 17. The Group applies this IFRS 9 classification overlay for selected asset portfolios backing direct participating insurance contracts which are accounted for at amortized cost under the current accounting framework but are expected to be accounted for at fair value with changes in fair value recorded in other comprehensive income (OCI) under IFRS 9. Furthermore, derivatives that have been previously designated as hedging instruments in effective cash flow hedge relationships, which hedge reinvestment risk from underlying assets backing direct participating contracts, are no longer presented as hedging derivatives. These derivatives are part of underlying items held for direct participating contracts. With the adoption of IFRS 17, these derivatives are presented as trading derivatives with the unrealized gains/losses included in the measurement of direct participating contracts under IFRS 17. Expected credit loss requirements have not been adopted as part of the overlay approach.

At the transition date, the Group classified, recognized and measured its in-force business as if IFRS 17 had always been applied. The Group recognized and measured assets for insurance acquisition cash flows as if IFRS 17 had always been applied, except that the recoverability assessment was not applied before the transition date. The Group also derecognized previously reported balances (e.g., deferred acquisition costs, present value of future profits, deferred front-end fees) that would not have existed if IFRS 17 had always been applied and recognized any resulting net difference in equity.

Furthermore, the Group reclassified all rights and obligations arising from portfolios of (re-)insurance contracts, such as (1) (re-)insurance contract liabilities and liabilities for investment contracts with discretionary participation features, (2) policyholder loans that are highly interrelated with the insurance contracts, (3) (re-)insurance-related receivables or payables and (4) insurance acquisition cash flows, to be presented as (re-)insurance contract assets/liabilities.

Portfolios of insurance contracts issued are presented separately from portfolios of reinsurance contracts held.

The Group assessed that the majority of its non-life (re-)insurance contracts issued and reinsurance contracts held in force as of the transition date is eligible for the application of PAA and applied PAA measurement for such contracts under IFRS 17. Due to their short-term nature, such in-force contracts typically applied the fully retrospective transition approach. However, for contracts that have expired prior to the transition date, for which no eligibility assessment for the application of PAA has been performed, the Group applied BBA with certain permissible transition modifications. The use of these modifications resulted in the measurement of the liability for incurred claims under modified retrospective or fair value approach using discount rates as at transition date. As the Group already applies best estimate reserving under its current accounting policies, the implementation of IFRS 17 is not expected to have a major impact on non-life nominal reserves. The effect of onerous groups of contracts is not material for the Group's consolidated financial statements.

The Group further assessed that a significant portion of its life insurance liabilities (including unit-linked insurance liabilities and certain life insurance contracts involving policyholder participation in Switzerland, Germany, Italy and Austria) qualify as direct participating contracts under IFRS 17 and are eligible for the application of the VFA measurement model. The optional exemption from the annual cohort requirement for such contracts is not applicable to the Group. For the direct participating contracts, excluding unit-linked insurance contracts, the Group applied the modified retrospective approach. Under IFRS 17, the measurement of such contracts uses the fair value of the underlying items and fulfilment cash flows at transition date, adjusted for actual amounts charged and paid in the past, to derive the transition CSM balance. Another large proportion of the life insurance liabilities including term life, whole-of-life and universal life contracts follows the BBA. The Group applied the modified retrospective or the fair value approach to the extent it was impracticable to apply the fully retrospective approach using the modifications allowed under IFRS 17. The Group also issues short-term life insurance contracts that are eligible for the application of PAA for which fully retrospective approach is applied.

Table 2.3 provides an overview of the Group's consolidated balance sheet line items (as presented in the 2021 Annual Report) that are affected by the transition to IFRS 17 and the expected consolidated balance sheet line items upon adoption of IFRS 17. It further reflects the effect of IFRS 9 overlay on the Group's consolidated balance sheet as of January 1, 2022.

Table 2.3

Transition effect of IFRS 17 and IFRS 9 overlay for balance sheet items impacted

in USD million, as of	December 31,			-		January 1,
	2021	Items	Items	IFRS 17	IFRS 9	2022
	(as reported)	derecognized	reclassified	remeasurement	overlay	(as restated)
(Re-)insurance related assets under IFRS 4:						
Deposits made under reinsurance contracts	444	_	(444)	_	_	_
Deferred policy acquisition costs	20,446	(14,491)	(5,955)	_	_	_
Deferred origination costs	441	_	(441)	_	_	_
Other intangible assets, including PVFP	4,484	(375)	(251)	_	_	3,858
Total (re-)insurance related assets (IFRS 4)	25,814	(14,867)	(7,090)	_	_	3,858
(Re-)insurance related assets under IFRS 17:						
Reinsurance contract assets (formerly, "Reinsurers	,					
share of liabilities for insurance contracts")	25,680	_	(4,156)	(1,315)	_	20,209
Insurance contract assets	_	_		720	_	720
Total (re-)insurance related assets (IFRS 17)	25,680	_	(4,156)	(595)	_	20,929
Investments under IFRS 9:						
Debt securities	145,084	_	_	_	5,245	150,329
Other loans	7,053	_	(647)	_	(3,878)	2,529
Other assets:						
Receivables and other assets	19,951	_	(11,221)	_	_	8,731
Deferred tax assets	1,198	_	_	711	-	1,909
Assets held for sale	11,626	_		(122)	_	11,504
Transition effects on assets	236,407	(14,867)	(23,113)	(6)	1,368	199,788
(Re-)insurance related liabilities under IFRS 4:						
Liabilities for investment contracts	68,855	_	(8,425)	_	_	60,430
Deposits received under ceded reinsurance						
contracts	970	_	(970)	_	_	_
Deferred front-end fees	5,007	(5,007)		_	_	_
Deferred origination fees	117	_	(117)	_	_	
Total (re-)insurance related liabilities (IFRS 4)	74,949	(5,007)	(9,512)	_	_	60,430
(Re-)insurance related liabilities under IFRS 17:						
Insurance Contract Liabilities (formerly, "Liabilities						
for insurance contracts")	272,707	_	(12,387)	2,322	_	262,642
Reinsurance contract liabilities		_		150	_	150
Total (re-)insurance related liabilities (IFRS 17)	272,707		(12,387)	2,472	_	262,792
Other liabilities:						
Other liabilities	16,009	_	(1,214)	_	_	14,795
Deferred tax liabilities	5,151			(2,248)	_	2,903
Liabilities held for sale	11,351	_		39	_	11,389
Transition effects on liabilities	380,166	(5,007)	(23,113)	263	_	352,310
Transition effects on shareholders' equity	-	(9,859)	_	(270)	1,368	(8,762)

The transition effects on assets and liabilities of USD 8.8 billion reflected against the shareholder's equity as of January 1, 2022 was primarily driven by a decrease of USD 9.9 billion for the Life businesses offset by an increase of USD 0.8 billion for the Property & Casualty businesses and USD 0.3 billion for other segments. The net transition impact to shareholder's equity consisted of the following offsetting effects:

- Recognition of future profits for contracts accounted for under the BBA and VFA (CSM) as an explicit liability (negative effect);
- Recognition of the shareholders' share of unrealized capital gains from underlying investments within liabilities for direct participating contracts under the VFA (negative effect);
- Recognition of a separate risk adjustment for non-financial risk (negative effect);
- Derecognition of deferred acquisition costs and front-end fees under IFRS 4 (negative effect);
- Application of discounting to non-life reserves that were not previously discounted (positive effect);
- Application of best estimate rather than locked-in assumptions for life insurance liabilities (positive effect).

Due to the current market movements and the increase in interest rates during 2022, we observed a significant reduction in unrealized gains from debt securities (see note 6), which contributed to the reduction in IFRS 4 shareholders' equity. The effect on IFRS 17 shareholder's equity is much less pronounced due to offsetting effects between asset and liability valuations. Therefore, the estimated difference between the IFRS 4 and IFRS 17 shareholder's equity reduced by USD 6.0 billion from USD 8.8 billion as of the transition date to USD 1.8 billion at June 30, 2022.

The transition to IFRS 17 also resulted in the recognition of a CSM of USD 14.4 billion (pre-tax), predominantly relating to direct participating contracts and term life products, and a risk adjustment of USD 3.9 billion. The Group does not expect significant changes in the business operating profit as a result from the transition to IFRS 17.

Preliminary effects of the transition to IFRS 9 on January 1, 2023

The transition to IFRS 9 on January 1, 2023 is expected to impact shareholders' equity mainly due to the following effects that will be recognized in opening retained earnings on transition to IFRS 9:

- Unrealized gains/losses from equity securities that were previously recognized in OCI;
- Unrealized gains/losses from debt securities that do not pass the solely payments of principle and interest test and will be accounted for at fair value through profit or loss under IFRS 9;
- Unrealized gains/losses from debt instruments that were previously accounted for at fair value through profit or loss under the fair value option but will be held under the business models 'held to collect contractual cash flows' or 'held to collect contractual cash flows and for sale' under IFRS 9.

The Group does not expect significant changes to the business operating profit as a result of the application of IFRS 9.

At the date of publication of these consolidated financial statements, the Group continues the preparation of the comparative period financial information based on IFRS 17 for the year ended December 31, 2022, which will be followed by transition to IFRS 9. At this date, it was not practicable to reliably quantify the effects of IFRS 17 and IFRS 9 for the year ended December 31, 2022.

Interest rate benchmark reform (including Phase 2 amendments to IAS 39, IFRS 7, IFRS 4 and IFRS 16)

The ongoing market-wide reform targets replacement of some interbank offered rates (IBORs) with alternative reference rates (ARRs). To ensure an orderly transition to ARRs, the Group launched a cross-functional IBOR transition working group that has analyzed the exposure and defined mitigating actions, for example, by adhering to the ISDA fallback protocols for derivatives, amending terms and conditions of new debt issuances and entering into bilateral negotiations with counterparties.

During 2022, JPY, CHF, GBP LIBOR and EONIA (Euro Overnight Index Average) settings were officially decommissioned with no major impact for the Group as most of the exposures indexed on those reference rates were already transitioned to new ARRs. During the second half of the year, given the developments in market liquidity, the Group decided to transition to the Secured Overnight Financing Rate (SOFR) for USD LIBOR exposures. For EUR exposure, EURIBOR is still the dominant reference rate, but the Group continues to monitor market readiness and liquidity metrics for potential transition to €STR (Euro short-term rate) in 2023. The reform has not resulted in changes to the Group risk management strategy.

The IASB addressed the financial reporting implications of the IBOR reform through IFRS amendments, which were fully adopted by the Group on January 1, 2020. Specifically, the phase 2 amendments introduce a practical expedient to account prospectively for a change in the basis for determining the contractual cash flows of a financial instrument attributable to the replacement of IBORs with ARR and relieve from specific hedge accounting requirements. Overall, the IBOR reform has no material effect on the Group's financial statements and the effectiveness of the Group's hedging relationships.

Other standards, amendments and interpretations shown in table 2.2 are expected to have no, or an insignificant, impact on the Group's financial position or performance.

3. Summary of significant accounting policies

Significant accounting policies applied in these consolidated financial statements are set out below. These policies have been consistently applied to all years presented unless otherwise stated. Other accounting policies are presented as part of the respective note disclosures.

a) Consolidation principles

The Group's consolidated financial statements include the assets, liabilities, equity, revenues, expenses and cash flows of Zurich Insurance Group Ltd and its subsidiaries. A subsidiary is an entity that Zurich Insurance Group Ltd either directly or indirectly controls. The results of subsidiaries acquired are included in the consolidated financial statements from the date of acquisition. The results of subsidiaries that have been divested during the year are included up to the date control ceased. All intra-Group balances, profits and transactions are eliminated.

Changes in ownership interests in a subsidiary that do not result in a change in control are recorded within equity.

Non-controlling interests are shown separately in equity, consolidated income statements, consolidated statements of comprehensive income and consolidated statements of changes in equity, as well as related disclosures.

The consolidated financial statements are prepared as of December 31 based on individual company financial statements at the same date. In some cases, information is included with a time lag of up to three months. The resulting effect on the Group's consolidated financial statements is not material.

b) Foreign currency translation and transactions

Foreign currency translation

Due to the Group's economic exposure to the U.S. dollar (USD), the presentation currency of the Group's consolidated financial statements is USD. Many Group companies have a different functional currency, being that of the respective primary economic environment in which these companies operate. Assets and liabilities are translated into the presentation currency at end-of-period exchange rates, while income statements and statements of cash flows are translated at average exchange rates for the period. The resulting foreign currency translation differences are recorded directly in other comprehensive income (OCI) as cumulative translation adjustment (CTA).

Foreign currency transactions and balances

Foreign currency transactions are translated into the functional currency using the spot exchange rate at the date of the transaction or, for practical reasons, a weighted average rate, if exchange rates do not fluctuate significantly. Foreign currency monetary items and foreign currency non-monetary items that are carried at fair value are translated at end-of-period exchange rates. The resulting foreign currency translation differences are recorded in income, except for the following:

- Foreign currency translation differences that are recognized in OCI in conjunction with the recognition of unrealized gains or losses on available-for-sale investments; and
- Foreign currency translation differences arising on monetary items that form part of net investments in foreign
 operations, as well as foreign currency translation differences arising from monetary items that are designated as
 hedging instruments in a qualifying net investment hedge relationship, are included directly in OCI as CTA.

Hyperinflation

The Group considers various factors to determine whether an economy in a country where a foreign operation is situated is hyperinflationary, including the cumulative three-year inflation rate. If an economy becomes hyperinflationary, the financial statements of foreign operations with the functional currency of the hyperinflationary economy are restated to reflect the current purchasing power at the end of the reporting period using the official consumer price indices commonly used in the respective country. The restatement includes all balance sheet amounts that are not expressed in terms of the measuring unit current at the balance sheet date and items of comprehensive income for the current year by applying the change in the price index from the dates when the items of income and expense were originally recorded. The restated financial statements of a foreign operation are translated into the Group's presentation currency at closing rates. Any translation adjustment resulting from initial application of the hyperinflationary accounting is recognized directly in equity.

c) Insurance contracts and investment contracts with discretionary participating features (DPF)

Contracts issued that transfer significant insurance risk to the Group and obligations arising from investment contracts with DPF are accounted for as insurance contracts.

The Group also issues products containing embedded options that entitle the policyholder to switch all or part of the current and future invested funds into another product issued by the Group. Where this results in the reclassification of an investment product to a product that meets the definition of an insurance contract, the previously held reserve and the related deferred origination costs are reclassified and are accounted for in accordance with the accounting policy that is to be applied to the new product on a prospective basis. As a consequence, no gain or loss is recognized when a contract is reclassified from an investment to an insurance contract.

Once a contract has been classified as an insurance contract, no reclassification can subsequently be made.

Premiums

Property & Casualty

Premiums from the sale of property & casualty products are generally recorded when written and are recognized as revenue in relation to the insurance coverage provided. The unearned premium reserve represents the portion of the premiums written related to the unexpired coverage period.

Life insurance

Premiums from traditional life insurance contracts, including participating contracts and annuity policies with life contingencies, are recognized as revenue when they are due from the policyholder. For single premium and limited pay contracts, premiums are recognized as revenue when due, with any excess profit deferred and recognized in income in a constant relationship to the insurance in-force or, for annuities, the amount of expected benefit payments.

Amounts collected as premiums from investment-type insurance contracts such as universal life, unit-linked and unitized with-profits contracts are generally reported as deposits. Revenue from these contracts consists of policy fees for the cost of insurance, administration and surrenders during the period. Front-end fees charged to the customer at inception, particularly for single premium contracts, are deferred and recognized over the estimated life of the contracts following the same pattern that is applied to deferred acquisition costs and addressed below. Regular fees charged to the customer periodically (monthly, quarterly or annually) either directly or by making a deduction from invested funds are billed in advance and recognized on a straight-line basis over the period in which the service is rendered. Fees charged at the end of the period are accrued over the service period as a receivable and are offset against the financial liability when charged to the customer.

Cash flows from certain universal life-type contracts in the Group's Spanish operations are recognized as gross written premiums and insurance benefits and losses and not as deposits.

Reserves for losses and loss adjustment expenses

Losses and loss adjustment expenses are charged to income as incurred. Reserves for losses and loss adjustment expenses represent estimates of future payments of reported and unreported claims for losses and related expenses, with respect to insured events that have occurred. Any changes in estimates are reflected in the results of operations in the period in which estimates are changed. The Group does not discount its loss reserves, other than for claims with payment patterns which are fixed and reasonably determinable, and claims in economies determined to be hyperinflationary where inflation constitutes a significant input in the reserving process.

Reserves for life benefits

Future life policyholder benefits represent the estimated future benefit liability for traditional life insurance policies and include the value of accumulated declared bonuses or dividends that have vested to policyholders.

The reserves for life benefits for participating traditional life insurance policies are calculated using a net level premium valuation method based on actuarial assumptions taking into account guaranteed mortality benefits and interest rates.

The reserves for life benefits for other traditional life insurance policies are calculated using a net level premium valuation method based on actuarial assumptions including mortality, persistency, expenses and investment return, plus a margin for adverse deviations. These assumptions are locked in at inception and are regularly assessed as part of the liability adequacy testing over the period of the contract.

Policyholder contract deposits represent the estimated policy benefits for investment-type insurance contracts invested in non-unit-linked funds. This liability comprises the accumulation of premiums received, less charges, plus declared policyholder dividends.

Some insurance contracts and investment contracts with DPF offered by the Group contain benefit features for which the amount and timing of declaration and payment are at the discretion of the Group. Where that discretion has not been exercised, the total amount expected to be allocated to policyholders as required by local insurance regulation or contractual provisions is included in the policyholder other funds.

Unrealized gains or losses arising on the revaluation of available-for-sale assets are recorded directly in OCI in accordance with the Group's accounting policy for such assets. Where these assets are related to life insurance, corresponding adjustments to the reserves for life benefits and related assets are also recognized directly in OCI.

Reserves for unit-linked contracts are based on the fair value of the financial instruments backing those contracts less any fees and assessments charged to the policyholders. The related assets for unit-linked insurance contracts are designated at fair value through profit or loss in order to reduce measurement inconsistencies.

For products containing guarantees in respect of minimum death benefits (GMDB), retirement income benefits (GRIB) and/or annuitization options (GAO), additional liabilities are recorded in proportion to the receipt of the contracted revenues which are subject to a liability adequacy test taking into account policyholder behavior and current market conditions.

For products managed on a dynamic basis using derivative hedging strategies, an option in IFRS 4 is used to measure insurance liabilities using current financial and non-financial assumptions to better reflect the way that these products are managed. Financial assets related to these liabilities are designated at fair value through profit or loss.

Deferred acquisition costs (DAC)

Costs that vary with and are directly related to the acquisition of new and renewal business, including for example commissions and certain underwriting and policy issue expenses, are deferred and subsequently amortized over a defined period. Such costs are presented on balance sheet net of commissions paid to reinsurers in respect of business ceded

Property & Casualty

DAC for property & casualty contracts is amortized over the period in which the related premiums are earned.

Life insurance

DAC for traditional participating life insurance contracts is amortized based on estimated gross margins expected to be realized over the life of the contract. Estimated gross margins are updated for actual and anticipated future experience and discounted using the latest revised interest rate for the remaining benefit period. Resulting deviations are reflected in income.

DAC for other traditional life insurance and annuity contracts is amortized over the life of the contracts, based on expected premiums. Expected premiums are estimated at the date of policy issue for application throughout the life of the contract unless a premium deficiency subsequently occurs.

DAC for investment-type insurance contracts such as universal life, unit-linked and unitized with-profits contracts is amortized based on estimated gross profits expected to be realized over the life of the contract. Estimated gross profits are updated for actual and anticipated future experience and discounted using either the interest rate in effect at the inception of the contracts or the latest revised interest rate for the remaining benefit period, depending on whether crediting is based on the policyholder's or on the reporting entity's investment performance. Resulting deviations are reflected in income.

Unamortized DAC for life insurance contracts accrues interest at a rate consistent with the related assumptions for reserves.

For traditional participating and investment-type life insurance contracts, DAC is adjusted for the impact of unrealized gains/(losses) on allocated investments that are recorded in OCI.

Liability adequacy tests

Liability adequacy tests are performed annually for groupings of contracts determined in accordance with the Group's manner of acquiring, servicing and measuring the profitability of its insurance contracts.

Property & Casualty

For property & casualty contracts, unearned premiums are tested to determine whether they are sufficient to cover related expected losses, loss adjustment expenses, policyholder dividends, unamortized DAC and maintenance expenses, using current assumptions and considering anticipated investment returns. If a premium deficiency is identified, the DAC asset for the respective grouping of contracts is written down by the amount of the deficiency. If, after writing down the DAC asset to nil, a premium deficiency still exists for the respective grouping of contracts, then an additional reserve is established for the amount of the remaining deficiency.

Life insurance

For life insurance contracts, the carrying amount of the existing reserve for life benefits, including any deferred front-end fees, reduced by the unamortized balance of DAC or present value of future profits of acquired insurance contracts (PVFP), is compared with the reserve for life benefits, calculated using revised assumptions for actual and anticipated experience as of the valuation date. If a deficiency is identified, the DAC or PVFP for the respective grouping of contracts is written down by the amount of the deficiency. If, after writing down the DAC or PVFP to nil, a deficiency still exists for the respective grouping of contracts, the reserve for life benefits is increased by the amount of the remaining deficiency.

Reinsurance

The Group's insurance subsidiaries cede risk in the normal course of business to limit the potential for losses arising from certain exposures. Reinsurance does not relieve the originating insurer of its liability. Certain Group insurance companies assume reinsurance business as part of their normal business.

Reinsurance contracts that do not transfer significant insurance risk are accounted for using the deposit method.

A deposit asset or liability is recognized based on the premium paid or received, less any explicitly identified premiums or fees to be retained by the ceding company. Interest on deposits is accounted for using the effective interest rate method. Future cash flows are estimated to calculate the effective yield, and revenues and expenses are recorded as interest income or expense. Reinsurance deposit assets or liabilities also include funds deposited or held by the Group under assumed or ceded reinsurance contracts, respectively, when funds are retained by the reinsured under the terms of the contract.

Reinsurance is recorded gross in the consolidated balance sheet. Reinsurance assets include balances expected to be recovered from reinsurance companies for ceded paid and unpaid losses and loss adjustment expenses, ceded unearned premiums and ceded future life policy benefits. Amounts recoverable from reinsurers are estimated in a manner consistent with the assumptions used for the liabilities associated with the underlying insurance contracts.

Reinsurance assets are assessed for impairment on a regular basis and impairment losses, if any, are recorded in the same manner as for loans and receivables.

d) Liabilities for investment contracts (without DPF)

Investment contracts are those contracts that do not transfer significant insurance risk. The Group issues investment contracts without fixed terms (unit-linked) and investment contracts with fixed and guaranteed terms (fixed interest rate).

Unit-linked investment contracts

These represent portfolios maintained to meet the specific investment objectives of policyholders who bear the credit, market and liquidity risks related to the investments. The liabilities are carried at fair value, which is determined by reference to the underlying financial assets. Changes in fair value are recorded in income. The related assets for unit-linked investment contracts are designated at fair value through profit or loss in order to reduce measurement inconsistencies.

The services provided by the Group under such contracts are investment management and policy administration services that are provided over time and are not contingent on meeting specified performance criteria. Fees from such services are recognized ratably over the service period as policy fee revenue except where such fees are charged in connection with contract origination in which case such fees are recognized as contract liabilities (included within deferred front-end fees). The costs to fulfill the services over time are generally recognized as incurred, except the costs of acquiring new investment contracts with investment management services, such as commissions and other incremental expenses directly related to the issuance of each new contract. Such fees enhance the resources that will be used to satisfy future performance obligations and – to the extent recoverable – are capitalized as contract assets (deferred origination costs, DOC) and amortized in line with the revenue generated by providing investment management services. See note 11 for further information.

Investment contracts at amortized cost

Liabilities for investment contracts with fixed and guaranteed terms are measured at amortized cost using the effective interest rate method. Transaction costs are included in the calculation of the effective yield. As of each reporting date, the Group re-estimates the expected future cash flows and re-calculates the carrying amount of the financial liability by computing the present value of estimated future cash flows using the original effective interest rate for the financial liability. Any adjustment is immediately recognized in income.

e) Group investments excluding derivative financial instruments

Group investments are accounted for at either (a) fair value through OCI; (b) fair value through profit or loss; or (c) amortized cost. The Group continues to apply the requirements in IAS 39 'Financial Instruments: Recognition and Measurement' until implementation of IFRS 9 'Financial Instruments' on January 1, 2023 (see note 2).

The majority of Group investments are accounted for at fair value through OCI (available-for-sale financial assets) and include debt and equity securities as well as fund investments. Such assets are carried at fair value, with changes in fair value recognized in OCI, until the securities are either sold or impaired. Interest income determined using the effective interest method and dividend income from financial assets at fair value through OCI is included in net investment income. The cumulative unrealized gains or losses recorded in OCI are net of cumulative deferred income taxes, certain related life policyholder liabilities and deferred acquisition costs. When available-for-sale financial assets are sold, impaired or otherwise disposed of, the cumulative gains or losses are reclassified from OCI to income as net capital gains/(losses) on investments and impairments.

Group investments at fair value through profit or loss include debt and equity securities backing certain life insurance contracts with participation features, and financial assets evaluated on a fair value basis. The designation of these assets at fair value through profit or loss eliminates or significantly reduces a measurement inconsistency that would otherwise arise from measuring assets or recognizing the gains and losses on these assets on a different basis to the liabilities.

Group investments at amortized cost include debt securities for which the Group has the positive intention and ability to hold to maturity (held-to-maturity financial assets) as well as mortgage and other loans (loans and receivables). Such investments are carried at amortized cost using the effective interest rate method, less any charges for impairment. When an impairment is determined to have occurred, the carrying amount of held-to-maturity investments and loans and receivables is reduced through the use of an allowance account, and the movement in the impairment allowance is recognized in income as an impairment loss.

The Group recognizes regular purchases and sales of financial assets on the trade date, which is the date on which the Group commits to purchase or sell the asset.

Realized and unrealized gains and losses arising from changes in the fair value are recognized in income, within net capital gains/(losses) on investments and impairments, in the period in which they arise. Interest income determined using the effective interest method and dividend income from financial assets at fair value through profit or loss is included in net investment income.

Group investments include investment property accounted for at fair value through profit or loss. Rental income from investment property is recognized on a straight-line basis over the lease term and included in net investment income along with rental operating expenses for investment property recognized on an accrual basis.

Group investments include the following in cash and cash equivalents: cash on hand, deposits held at call with banks, cash collateral received and other highly liquid investments with maturities of three months or less from the date of acquisition that are readily convertible into cash and are subject to an insignificant risk of change in fair value. Cash and cash equivalents are stated at current redemption value.

Impairment of financial assets

The Group assesses at each reporting date whether there is objective evidence that loss events have occurred that negatively affect the estimated future cash flows of a financial asset or a group of financial assets. The evaluation of whether a financial asset is impaired requires significant judgment (see note 4).

f) Derivative financial instruments and hedge accounting

Derivative financial instruments, except those designated under a qualifying cash flow or net investment hedge relationship, are carried at fair value on the balance sheet with changes in fair value recognized in income. Centrally cleared and over-the-counter derivative transactions subject to daily cash variation margin payments are typically presented net of cash collateral, with any excess of cash paid or received included as a receivable or a payable on the balance sheet.

Derivative financial instruments that qualify for hedge accounting

Derivative financial instruments are used by the Group to economically hedge risks. In limited circumstances derivative financial instruments are designated as hedging instruments for accounting purposes in:

- Fair value hedges, which are hedges of the exposure to changes in the fair value of a recognized asset or liability.
- Cash flow hedges, which are hedges of the exposure to variability in cash flows attributable to a particular risk either associated with a recognized asset or liability, or a highly probable forecast transaction that could affect profit or loss.
- Net investment hedges, which are hedges of a net investment in a foreign operation.

All hedge relationships are formally documented, including the risk management objectives and strategy for undertaking the hedge. At inception of a hedge and on an ongoing basis, the hedge relationship is formally assessed to determine whether the hedging instruments are expected to be (prospective assessment) and have been (retrospective assessment) highly effective in offsetting changes in fair values or cash flows of hedged items attributable to the hedged risk. If the qualifying criteria for the application of hedge accounting are no longer met, the hedge relationship is discontinued prospectively, in which case the hedging instrument and the hedged item are then subsequently reported independently in accordance with the respective accounting policy.

The accounting treatment of a qualifying hedge relationship is further described in note 7.

g) Attorney-in-fact (AIF) contracts

The AIF contracts reflect the ability of the Group to generate future revenues through Farmers Group Inc. (FGI) based on the FGI's relationship with the Farmers Exchanges. The Farmers Exchanges are not owned by FGI, a wholly owned subsidiary of the Group. In determining that these relationships have an indefinite useful life, the Group took into consideration the organizational structure of inter-insurance exchanges, under which subscribers exchange contracts with each other and appoint an attorney-in-fact to provide non-claims services, and the historical AIF relationship between FGI and the Farmers Exchanges. The value of the AIF contracts is tested for impairment at least annually.

The services provided by FGI under such contracts are non-claims services including risk selection, preparation and mailing of policy documents and invoices, premium collection, management of the investment portfolios and certain other administrative functions. The multiple performance obligations covered by the consideration received are considered to be a series with the same pattern of transfer; therefore, the performance obligations are not separated. The revenue for the services provided includes Farmers management fee, membership fees and revenues for ancillary services. Farmers management fees are determined as a percentage of gross premiums earned by the Farmers Exchanges and recognized ratably over the period the services are provided. Membership fees are one-time fees charged at the time of the policy issuance that do not cover a distinct performance obligation. Such fees are recognized as revenue over the expected life of the customer relationship. The incremental costs incurred in connection with the customer setup activity are recognized as an asset and subsequently amortized using the same pattern as the related revenue. The revenue for ancillary services includes remuneration for services provided that are not covered by Farmers management fees where FGI acts as a principal. Typically, these services are provided over time, so that the revenue is also recognized over time. See note 26 for further information.

h) Goodwill

Goodwill on the acquisition of subsidiaries is capitalized and tested for impairment annually, or more frequently if there are indications of impairment. For the purpose of impairment testing, goodwill is allocated to cash-generating units (CGUs) based on the level at which management monitors operations and makes decisions related to the continuation or disposal of assets and operations. If goodwill has been allocated to a CGU and an operation within that unit is disposed of, the carrying amount of the operation includes attributable goodwill when determining the gain or loss on disposal.

i) Other intangible assets

Other intangible assets typically have finite lives and are carried at cost, less accumulated amortization and impairments. Such assets are generally amortized using the straight-line method over their useful lives and reviewed for impairment at least annually, or whenever events or changes in circumstances indicate that the carrying amount may not be recoverable.

Present value of future profits from acquired insurance contracts (PVFP)

An intangible asset representing the PVFP arises from the acquisition of life insurance businesses. Such an asset is amortized over the expected life of the acquired contracts, following the same principles as for DAC. The carrying value of the PVFP asset is tested periodically for impairment as part of the liability adequacy test for insurance contracts.

Distribution agreements

Distribution agreements may have useful lives extending up to 30 years, estimated based on the period of time over which they are expected to provide economic benefits, but for no longer than the contractual term, after taking into account all economic and legal factors such as stability of the industry, competitive position and the period of control over the assets.

Software

Costs associated with research and maintenance of internally developed computer software are expensed as incurred. Costs incurred during the development phase are capitalized. Software under development is tested for impairment annually.

Acquired computer software licenses are capitalized on the basis of the costs incurred to acquire and bring the specific software into use.

The useful lives of computer software licenses and capitalized internal software development costs generally range from three to five years. In limited circumstances, capitalized software development costs may be amortized over a period of up to 10 years, taking into account the effects of obsolescence, technology, competition and other economic and legal factors.

j) Employee benefits

Share-based compensation and cash incentive plans

The Group operates long-term incentive plans that are accounted for as equity-settled share-based compensation plans. The fair value of these incentive plans is determined at the grant date and is recognized as an expense in income over the vesting period, with a corresponding increase recorded in additional paid-in capital.

Subsequently, depending on the underlying performance metrics, the Group revises its estimates of the number of shares that are expected to be issued and recognizes the impact of the revision, if any, in income with a corresponding adjustment to additional paid-in capital. However, no subsequent adjustment is made after the vesting date. See note 21 for further information.

Retirement benefits

The Group operates various post-employment benefit plans for its employees worldwide, which include defined benefit and defined contribution pension plans, and other post-employment benefits, such as medical care and life insurance.

Contributions to defined contribution plans are recorded as an expense in the period in which the economic benefit from the employees' service was received.

Defined benefit plan obligations and current service costs are determined annually by qualified actuaries using the projected unit credit method. The defined benefit liability represents the present value of defined benefit obligation at the end of the reporting period less the fair value of plan assets with changes from remeasurements recorded in OCI. If the fair value of the plan assets is higher than the present value of the defined benefit obligation, the recognition of the resulting net asset is limited to the present value of any economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan.

Group's expense related to these plans is accrued over the employees' service periods based on the actuarially determined cost for the period. Net interest and service costs are determined using the spot rate approach. Actuarial gains and losses are recognized, in full in the period in which they occur, in OCI. Past service costs, which result from plan amendments and curtailments, are recognized in income when the plan amendment or curtailment occurs (which is the date from which the plan change is irrevocable) and the date on which a constructive obligation arises. Settlement gains or losses are recognized in income when the settlement occurs. See note 20 for further information.

Other post-employment benefits

Other post-employment benefits, such as medical care and life insurance, are also provided for certain employees and are primarily funded internally. Similar to defined benefit plans, the cost of such benefits is accrued over the service period of the employees based on the actuarially determined cost for the period. See note 20 for further information.

k) Leases

The Group is typically acting as a lessee in property, car or equipment leases. Furthermore, the Group is acting as a lessor in leases of investment property.

When acting as a lessee, the Group recognizes a right-of-use asset and a corresponding lease liability at the lease commencement date when the leased asset is available for use by the Group. The lease liability is measured at the present value of the lease payments due over the lease term, discounted using the Group's incremental borrowing rate. Any options to extend or terminate a lease that the Group is reasonably certain to exercise are included in the lease term. The right-of-use asset is initially recognized at an amount equal to the lease liability adjusted for lease prepayments made or lease incentives received, initial direct costs and any estimated costs to dismantle or restore the leased asset.

The right-of-use asset is depreciated over the shorter of the leased asset's useful life or the lease term on a straight-line basis. The right-of-use asset is included in 'Property and equipment' and disclosed separately in note 13. The carrying amount of the lease liability is increased to reflect the unwinding of the discount so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period and is reduced by the lease payments made during the period. Lease payments include fixed payments and variable payments that depend on a non-leveraged index or a rate. Lease liabilities are included within 'Other Liabilities.'

The Group records short-term leases and leases of low-value assets as an expense on a straight-line basis over the lease term. Short-term leases are leases with a lease term of 12 months or less. Low-value assets are comprised of hardware and smaller office equipment. The lease expense is included in 'Administrative and other operating expense.'

When acting as a lessor of investment property in an operating lease, the Group follows the accounting policy in paragraph e).

4. Critical accounting judgments and estimates

The application of certain accounting policies requires critical accounting estimates that involve discretionary judgments and the use of assumptions which are susceptible to change due to inherent uncertainties. Because of the uncertainties involved, actual results could differ significantly from the assumptions and estimates made by management. Such critical accounting estimates are of significance to insurance reserves and deferred acquisition costs, the determination of fair value for financial assets and liabilities, impairment charges, deferred taxes and employee benefits.

a) Reserves for insurance contracts and deferred acquisition costs

Property & Casualty

The Group is required to establish reserves for payment of losses and loss adjustment expenses that arise from the Group's property & casualty products. These reserves represent the expected ultimate cost to settle claims occurring prior to, but still outstanding as of, the balance sheet date. The Group establishes its reserves by product line, type and extent of coverage and year of occurrence. There are two categories of loss reserve: reserves for reported losses and reserves for incurred but not reported (IBNR) losses. Additionally, reserves are held for loss adjustment expenses, which contain the estimated legal and other expenses expected to be incurred to finalize the settlement of the losses.

The Group's reserves for reported losses and loss adjustment expenses are based on estimates of future payments to settle reported claims. The Group bases such estimates on the facts available at the time the reserves are established. These reserves are generally established on an undiscounted basis to recognize the estimated costs of bringing pending claims to final settlement. The reserve calculation takes into account inflation, as well as other factors that can influence the amount of reserves required, some of which are subjective and some of which are dependent on future events. In determining the level of reserves, the Group considers historical trends and patterns of loss payments, pending levels of unpaid claims and types of coverage. In addition, court decisions, economic conditions and public attitudes may affect the ultimate cost of settlement and, as a result, the Group's estimation of reserves. Between the reporting and final settlement of a claim circumstances may change, which may result in changes to established reserves. Items such as changes in law and interpretations of relevant case law, results of litigation, changes in medical costs, as well as costs of vehicle and home repair materials and labor rates can substantially impact ultimate settlement costs. Accordingly, the Group reviews and re-evaluates claims and reserves on a regular basis. Amounts ultimately paid for losses and loss adjustment expenses can vary significantly from the level of reserves originally set.

The Group establishes IBNR reserves, to recognize the estimated cost of losses for events which have already occurred but which have not yet been notified. These reserves are established to recognize the estimated costs required to bring such claims to final settlement. As these losses have not yet been reported, the Group relies upon historical information and statistical models, based on product line, type and extent of coverage, to estimate its IBNR liability. The Group also uses reported claim trends, claim severities, exposure growth and other factors in estimating its IBNR reserves. These reserves are revised as additional information becomes available and as claims are actually reported.

The time required to learn of and settle claims is an important consideration in establishing the Group's reserves. Short-tail claims, such as those for motor and property damage, are normally reported soon after the incident and are generally settled within months. Long-tail claims, such as bodily injury, pollution, asbestos and product liability, can take years to develop and additional time to settle. For these claims, information concerning the event, such as the required medical treatment for bodily injury claims and the required measures to clean up pollution, may not be readily available. Accordingly, the reserving analysis of long-tail lines of business is generally more difficult and subject to greater uncertainties than for short-tail claims.

Since the Group does not establish reserves for catastrophes in advance of the occurrence of such events, these events may cause volatility in the levels of its incurred losses and reserves subject to the effects of reinsurance recoveries. This volatility may also be contingent upon political and legal developments after the occurrence of the event.

The Group uses a number of accepted actuarial methods to estimate and evaluate the amount of reserves recorded. The nature of the claim being reserved for and the geographic location of the claim influence the techniques used by the Group's actuaries. Additionally, the Group's Corporate Center actuaries perform periodic reserve reviews of the Group's businesses throughout the world. Management considers the results of these reviews and adjusts its reserves for losses and loss adjustment expenses, where necessary.

Life insurance

The reserves for future life policyholder benefits and policyholder contract deposits and other funds contain a number of assumptions regarding mortality or longevity, lapses, surrenders, expenses, discount rates and investment returns. These assumptions can vary by country, year of policy issuance and product type and are determined with reference to past experience adjusted for new trends, current market conditions and future expectations. As such the liabilities for future life policyholder benefits and policyholder contract deposits may not represent the ultimate amounts paid out to policyholders. For example:

- The estimated number of deaths determines the value of the benefit payments. The main source of uncertainty
 arises because of the potential for pandemics and wide-ranging lifestyle changes, such as changes in eating,
 smoking and exercise habits, which could result in earlier deaths for age groups in which the Group has significant
 exposure to mortality risk.
- For contracts that insure the risk of longevity, such as annuity contracts, an appropriate allowance is made for people
 living longer. Continuing improvements in medical care and social conditions could result in further improvements in
 longevity in excess of those allowed for in the estimates used to determine the liability for contracts where the Group
 is exposed to longevity risk.
- Under certain contracts, the Group has offered product guarantees (or options to take up product guarantees), including fixed minimum interest rate or mortality rate returns. In determining the value of these options and/or benefits, estimates have been made as to the percentage of contract holders that may exercise them. Changes in investment conditions could result in significantly more contract holders exercising their options and/or benefits than has been assumed.
- Estimates are made as to future investment income arising from the assets backing long-term insurance contracts.
 These estimates are based on current market returns as well as expectations about future economic and financial developments.
- Assumptions are determined with reference to current and historical customer data, as well as industry data. Interest
 rate assumptions reflect expected earnings on the assets supporting the future policyholder benefits. The information
 used by the Group's qualified actuaries in setting such assumptions includes, but is not limited to, pricing assumptions,
 available experience studies and profitability analysis.

Deferred policy acquisition costs and the present value of future profits (PVFP) are recognized on balance sheet only to the extent that they are recoverable from future policy income which also depends on the above assumptions. Recoverability is tested at contract inception and subsequently on a regular basis with reference to current expectations of future profits or margins.

See note 8 for further information on liabilities for insurance contracts and note 11 for deferred policy acquisition costs. Also refer to the insurance risk section of the risk review.

b) Fair value measurement

In determining the fair values of investments in debt and equity instruments traded on exchanges and in over-the-counter (OTC) markets, the Group makes extensive use of independent, reliable and reputable third-party pricing providers and only in rare cases places reliance on valuations that are derived from internal models.

In addition, the Group's policy is to ensure that independently sourced prices are developed by making maximum use of current observable market inputs derived from orderly transactions and by employing widely accepted valuation techniques and models. When third-party pricing providers are unable to obtain adequate observable information for a particular financial instrument, the fair value is determined either by requesting selective non-binding broker quotes or by using internal valuation models.

Valuations can be subject to significant judgment, especially when the fair value is determined based on at least one significant unobservable input parameter; such items are classified within level 3 of the fair value hierarchy. See notes 6, 7 and 23 for further information regarding the estimate of fair value.

c) Impairment of assets

Financial assets

A financial asset is considered impaired if there is objective evidence of impairment as a result of one or more occurred loss events that have an impact on the estimated future cash flows of the financial asset.

The evaluation of whether an available-for-sale debt security is impaired requires analysis of the credit standing of a particular issuer and involves management judgment. When assessing impairment of available-for-sale debt securities, the Group places emphasis on issuer specific factors, such as significant financial difficulty, default or delinquency on interest or principal payments. A credit rating downgrade, worsened liquidity or decline in fair value below the weighted-average cost is not by itself considered a loss event, but rather incorporated in the impairment analysis along with other available information.

The Group determines that there is objective evidence of impairment of an available-for-sale equity security, if at the reporting date:

- its fair value is below the weighted-average cost by an amount significantly exceeding the volatility threshold determined quarterly for the respective equity market (such as North America, Asia Pacific, UK, Switzerland and other European countries); or
- its fair value has been below the weighted-average cost for a prolonged period of 24 consecutive months or longer.

Goodwill and attorney-in-fact (AIF) contracts

Goodwill is allocated to a cash generating unit (CGU) as outlined in note 3. The Group has defined the CGUs according to regions, separating Property & Casualty (P&C), Life businesses and other (see note 27). The CGUs which carry the majority of goodwill and AIF contracts are presented in table 4.

For goodwill impairment testing, the Group estimates the recoverable amount based on the value-in-use of the CGU.

Value-in-use is determined using the present value of estimated future cash flows expected to be generated from the CGU. Cash flow projections are based on business plan projections, which are approved by management, typically covering a three-year period or, if appropriate and adequately justified, a longer period, which may be necessary to more accurately represent the nature of the cash flows used to test the goodwill. Cash flows beyond this period are extrapolated using, among others, estimated perpetual growth rates, which typically do not exceed the expected inflation of the geographical areas in which the cash flows supporting the goodwill are generated. If cash flows are generated in different geographical areas with different expected inflation rates, weighted averages are used. The discount rates applied reflect the respective risk-free interest rate adjusted for the relevant risk factors to the extent they have not already been considered in the underlying cash flows.

The discount rates used in the recoverable amount calculations for developed markets are based on the weighted average cost of capital and consider government bond rates which are further adjusted for equity risk premium, appropriate beta and leverage ratio. In emerging markets, discount rates are based on the U.S. dollar discount rate, taking into account inflation differential expectations and country risks. All input factors to the discount rates are based on observable market data.

Table 4 sets out for the major CGUs the applied discount rates and the perpetual nominal growth rates beyond the projection period that depend on expectations about country-specific growth rates and inflation as of the date of valuation, as well as the value of goodwill and AIF contracts as of December 31, 2022.

Table 4

Discount and perpetual growth rates for goodwill and AIF contracts for major CGUs

					Perpetual	Perpetual
					nominal	nominal
			Discount	Discount	growth	growth
		in USD	rates in %	rates in %	rate in %	rate in %
	Business	millions	2022	2021	2022	2021
Farmers	Farmers	3,888	9.4	9.2	2.0	2.2
North America	P&C	350	9.3	9.0	2.0	2.2
Europe, Middle East & Africa	P&C	313	8.9	8.3	2.0	1.8
Asia Pacific	P&C	781	9.8	9.0	2.1	1.8
Asia Pacific	Life	1,120	10.0	9.1	2.1	2.0
Latin America	P&C	316	21.1	17.8	8.0	6.0
Latin America	Life	74	17.0	15.4	5.6	4.4

The recoverable amount of goodwill remains contingent on future cash flows and other assumptions, particularly discount rates and the perpetual growth rate. If the estimated future cash flows and other assumptions deviate significantly from the Group's current outlook, there is a risk that the goodwill is impaired.

Quantitative sensitivity tests have been performed for all CGUs by applying a reasonably possible change to each of the key assumptions to capture potential future variations in market conditions: a decrease in cash flows of up to 20 percent, an increase in the discount rate of 1.0 percentage point and a decrease in the perpetual growth rate of 1.0 percentage point. Under each individual scenario, reasonably possible changes in key assumptions did not impair goodwill and AIF contracts.

Distribution agreements

Qualitative analyses have been performed on distribution agreements, typically comprising an analysis of the current financial performance or any change in the conditions in the agreement and environment that would indicate an impairment. No impairment was identified.

See notes 3, 6, 13, 14 and 15 for further information on impairment of assets.

d) Deferred taxes

Deferred tax assets are recognized if sufficient future taxable income, including income from the reversal of existing taxable temporary differences and available tax planning strategies, is available for realization. The utilization of deferred tax assets arising from temporary differences between the carrying amounts of assets and liabilities in the consolidated financial statements and their tax bases depends on the generation of sufficient taxable profits in the period in which the underlying asset or liability is recovered or settled. If applicable tax law acknowledges different types of expenses to be tax deductible, deferred tax assets are only recognized if they give rise to deductions against the same type of taxable income. The utilization of deferred tax assets arising from unused tax losses or tax credits depends on the generation of sufficient taxable profits before the unused tax losses or tax credits expire. As of each balance sheet date, management evaluates the recoverability of deferred tax assets and, if it is considered probable that all or a portion of the deferred tax asset will not be utilized, then a valuation allowance is recognized.

See note 17 for further information on deferred taxes.

e) Employee benefits

The Group provides defined benefit plans and other post-employment plans. In assessing the Group's liability for these plans, critical judgments include estimates of mortality rates, rates of employment turnover, disability, early retirement, discount rates, future salary and pension increases and increases in long-term health care costs. Discount rates for significant plans are based on a yield-curve approach. The Group sets the discount rate by creating a hypothetical portfolio of high-quality corporate bonds for which the timing and amount of cash flows approximate the estimated payouts of the defined benefit plan. These assumptions may differ from actual results due to changing economic conditions, higher or lower withdrawal rates, or longer or shorter life spans of participants. These differences may result in variability of pension income or expense recorded in future years.

See note 20 for further information on employee benefits.

5. Acquisitions and divestments

Transactions in 2022

Acquisitions

Deutsche Bank Italian Financial Advisors network acquisition

On August 4, 2021, Zurich Insurance Company Ltd reached an agreement to acquire the network of Financial Advisors of the Deutsche Bank Group in Italy. The terms of the agreement provide for the transfer of a business unit, mainly active in the financial advisory and investment products offering and distribution, consisting of approximately 1,085 financial advisors, 97 employees and EUR 16.5 billion of assets under management. The acquisition allows Zurich in Italy to further develop its financial and insurance distribution network in the Italian market. On October 14, 2022, the Group, through its subsidiary Zurich Italy Bank S.p.A., completed the acquisition for USD 328 million.

Table 5.1 shows the preliminary opening balance sheet line items as of the acquisition date, representing the fair value of tangible and intangible assets.

Table 5.1

DB Italian Financial Advisors network balance sheet as of the acquisition date

Table 5.1	
in USD millions, as of October 14, 2022	Total
Cash and cash equivalents	1,092
Total investments	78
Receivables and other assets	79
Property and equipment	21
Goodwill	211
Software	1
Other intangible assets	136
Assets acquired	1,617
Other liabilities	76
Deposits (only for banks)	1,214
Liabilities acquired	1,289
Net assets acquired	328
Cash consideration	328

Divestments

Held for sale

As of December 31, 2022, the total assets and liabilities reclassified to held for sale were USD 22.1 billion and USD 21.3 billion, respectively, as per transactions below.

Zurich Deutscher Herold Lebensversicherung Aktiengesellschaft

On June 24, 2022, Zurich Group agreed to sell its legacy traditional life insurance back book in Germany to Viridium Holding AG (Viridium), a leading specialist in the management of life insurance portfolios (run-off) in Germany. The transaction includes the transfer of approximately USD 20 billion of net reserves, mainly related to annuity and endowment products underwritten more than five years ago. The sale is subject to regulatory approvals and will not change the contractual obligations to customers and distribution partners. As of December 31, 2022, assets and liabilities reclassified to held for sale were USD 20.8 billion and USD 20 billion, respectively.

Spain Medical Malpractice portfolio

On December 9, 2021, Zurich Insurance plc entered into an agreement to sell its legacy medical malpractice portfolio in Spain ('Spain Medical Malpractice portfolio'). The transaction is subject to regulatory and court approvals and is expected to be completed in 2024. As of December 31, 2022, assets and liabilities reclassified to held for sale were USD 101 million and USD 101 million, respectively.

UK Employers' liability portfolio

On December 14, 2018, Zurich Insurance plc entered into an agreement with Catalina Holdings (Bermuda) Ltd and certain of its subsidiaries to transfer a portfolio of pre-2007 United Kingdom legacy employers' liability policies to Catalina Worthing Insurance Limited ('UK Employers' Liability portfolio'), subject to regulatory and court approvals. With effect from January 1, 2022, the UK Employers' Liability portfolio was transferred to Zurich Insurance Company Ltd, UK Branch, under a Part VII transfer together with the rights and obligations of Zurich Insurance plc under the agreement. The transfer to Catalina Worthing Insurance Limited is expected to be completed in 2025. As of December 31, 2022, assets and liabilities reclassified to held for sale were USD 1.2 billion and USD 1.2 billion, respectively.

Divested

Joint Stock Company Insurance Company 'Zurich' (Zurich Russia)

On May 19, 2022, Zurich Insurance Group agreed to sell its business in Russia to 11 members of the unit's team. Under its new owners, the business will operate independently under a different brand, while Zurich will no longer conduct business operations in Russia. The sale of Zurich Russia was completed on July 8, 2022, with a pre-tax loss of USD 30 million recognized in profit or loss.

Zurich Investments Life S.p.A. portfolio

On January 2, 2022, Zurich Investments Life S.p.A. agreed to sell part of its life and pension back book, composed of both traditional and multi-class products, to the Portuguese insurance company GamaLife – Companhia de Seguros de Vida, S.A. On November 30, 2022, the Group completed the sale with a pre-tax loss of USD 337 million, of which USD 144 million was recognized already as of December 31, 2021, in profit or loss.

Zurich International Life portfolio

On December 22, 2020, Zurich International Life Limited (ZILL) entered into an agreement with Monument Re Limited to sell the closed book portfolio of ZILL's Singapore long-term life insurance business. On November 1, 2022, the Group completed the sale with a pre-tax loss of USD 32 million recognized in profit or loss.

Transactions in 2021

Acquisitions

MvPolicy Group

On May 18, 2021, the Group acquired a 19.99 percent share in Project Policy Bidco Limited, the owner of MyPolicy Limited, a UK usage-based insurance managing general agent, and Minerva. Science Limited. As part of the acquisition, Zurich contributed Bright Box Hong Kong Limited and its subsidiaries as well as USD 10 million in cash. The investment is valued at USD 28 million. As a result of the transaction, the Group recognized a USD 33 million loss on sale of Bright Box Hong Kong Limited.

MetLife Property and Casualty business

On December 11, 2020, Zurich Insurance Group Ltd (Zurich) subsidiary Farmers Group, Inc. (FGI) and Farmers Exchanges announced the acquisition of MetLife's property and casualty (P&C) business in the U.S. for a purchase price of USD 3.96 billion. The acquisition successfully closed on April 7, 2021, and the acquired P&C business has since been rebranded to Farmers Workplace Solutions (FWS). As part of the transaction in effect, FGI acquired MetLife P&C's management and administrative-related assets and liabilities to conduct its responsibilities as attorney-in-fact of the Farmers Exchanges and the Farmers Exchanges' underlying insurance business. Zurich contributed USD 2.44 billion through FGI and the Farmers Exchanges, USD 1.52 billion. Farmers Group, Inc., a wholly owned subsidiary of the Group, provides certain non-claims services and ancillary services to the Farmers Exchanges as its attorney-in-fact and receives fees for its services. Attorney-in-fact services primarily include risk selection, preparation and mailing of policy documents and invoices, premium collection, management of the investment portfolios and certain other administrative and managerial functions. Fees for these services are primarily determined as a percentage of gross premiums earned by the Farmers Exchanges. Ancillary services primarily include information technology, brand advertising and certain distribution-related services that are not covered under the attorney-in-fact contracts for which FGI acts as a principal in arranging for those services to the Exchanges.

The acquisition gives the Farmers Exchanges a truly nationwide presence and access to new distribution channels. This includes a 10-year exclusive distribution agreement through which the Farmers Exchanges are offering their personal lines products on MetLife's industry-leading U.S. Group Benefits platform, which reaches 3,800 companies and 37 million employees.

Table 5.2 shows the updated opening balance sheet line items as of the acquisition date, representing the fair value of tangible and intangible assets. Goodwill was increased by USD 133 million in the second half of 2021 due to adjustments to the purchase price allocation, based on the finalization of certain tax contingencies associated with the acquisition.

Table 5.2

MetLife P&C balance sheet as of the acquisition date

Table 5.2	
in USD millions, as of April 7, 2021	Total
Receivables and other assets	8
Property and equipment	1
Goodwill ¹	418
Attorney-in-fact contracts	1,625
Software	153
Other intangible assets	375
Assets acquired	2,580
Other liabilities	9
Deferred tax liabilities ¹	126
Liabilities acquired	135
Net assets acquired	2,444
Cash consideration	2,444

¹ Includes deferred tax adjustments of USD 133 million.

Management fees and other related revenues generated and net income after taxes for the period April 7, 2021 to December 31, 2021, were USD 473 million and USD 55 million, respectively. Calculating these items for the full year was deemed impractical. The Group incurred transaction-related costs of approximately USD 20 million, the majority of which were incurred in 2021.

6. Group investments

Group investments are those for which the Group bears part or all of the investment risk. They also include investments related to investment contracts with discretionary participation features. Net investment result on Group investments includes returns on investment-related cash, which is included in cash and cash equivalents on the consolidated balance sheets.

Table 6.1

Net investment result on Group investments

Table 0.1									
in USD millions, for the years ended				Net capital					
December 31	Net i	Net investment		ains/(losses)	Net investment			of which	
_		income	and	impairments		result		impairments	
	2022	2021	2022	2021	2022	2021	2022	2021	
Investment cash	8	2	_	_	8	2	_	_	
Equity securities	415	488	93	1,844	508	2,332	(249)	(39)	
Debt securities	4,019	3,886	(1,773)	(31)	2,246	3,855	(40)	(13)	
Investment property ¹	453	474	623	520	1,076	994	_	_	
Mortgage loans	159	151	(2)	(1)	156	150	(2)	(1)	
Other loans	327	329	33	5	360	333	21	7	
Investments in associates									
and joint ventures	(4)	(4)	(27)	(10)	(31)	(14)	(27)	(10)	
Derivative financial									
instruments	_	-	101	(290)	101	(290)	_	_	
Investment result, gross,									
on Group investments	5,377	5,326	(951)	2,038	4,425	7,363	(296)	(57)	
Investment expenses									
on Group investments	(292)	(279)	_	_	(292)	(279)	_	_	
Investment result, net,									
on Group investments	5,084	5,047	(951)	2,038	4,133	7,085	(296)	(57)	

 $^{1 \}quad \text{Rental operating expenses for investment property amounted to USD 134 million and USD 150 million for the years ended December 31, 2022 and 2021, respectively.} \\$

Table 6.2

Details of Group investments by category

lable 6.2				
as of December 31		2022		2021
	USD millions	% of total	USD millions	% of total
Equity securities:				
Fair value through profit or loss	3,540	2.5	4,571	2.4
Available-for-sale	9,590	6.8	14,008	7.3
Total equity securities	13,130	9.3	18,578	9.7
Debt securities:				
Fair value through profit or loss	6,386	4.5	7,181	3.8
Available-for-sale	94,440	67.2	136,005	71.2
Held-to-maturity	2,838	2.0	1,897	1.0
Total debt securities	103,664	73.7	145,084	76.0
Investment property	14,798	10.5	14,070	7.4
Mortgage loans	5,497	3.9	6,106	3.2
Other loans	3,444	2.4	7,053	3.7
Investments in associates and joint ventures	92	0.1	68	0.0
Total Group investments	140,625	100.0	190,959	100.0

Investments with a carrying value of USD 5.6 billion and USD 6.3 billion are held to meet local regulatory requirements as of December 31, 2022 and 2021, respectively.

Table 6.3

Details of debt securities by category

in USD millions, as of December 31	Fair val	ue through						
/	р	rofit or loss	ss Available-for-sale		Held-to-maturity		Total	Total
	2022	2021	2022	2021	2022	2021	2022	2021
Debt securities:								
Government and								
supra-national bonds	2,912	3,156	42,882	64,441	2,769	1,798	48,563	69,395
Corporate securities	3,025	3,533	38,354	55,757	69	99	41,448	59,389
Mortgage and								
asset-backed securities	449	492	13,204	15,808	_	_	13,653	16,300
Total debt securities	6,386	7,181	94,440	136,005	2,838	1,897	103,664	145,084

Table 6.4

Debt securities maturity schedule

Table 0.4								
in USD millions, as of December 31	Fair val	ue through						
_	р	profit or loss		Available-for-sale		Held-to-maturity		Total
	2022	2021	2022	2021	2022	2021	2022	2021
Debt securities:								
< 1 year	900	733	5,567	6,513	880	35	7,348	7,281
1 to 5 years	2,049	1,974	29,891	34,135	831	820	32,772	36,929
5 to 10 years	1,442	1,671	20,593	29,097	657	536	22,692	31,304
> 10 years	1,545	2,312	25,184	50,452	470	506	27,199	53,270
Subtotal	5,937	6,689	81,236	120,197	2,838	1,897	90,011	128,784
Mortgage and asset-backed								
securities:								
< 1 year	1	1	17	20	_	_	18	20
1 to 5 years	118	110	1,234	1,039	_	_	1,352	1,149
5 to 10 years	107	127	2,596	2,188	_	_	2,704	2,315
> 10 years	223	254	9,357	12,562	-	_	9,580	12,816
Subtotal	449	492	13,204	15,808	_	-	13,653	16,300
Total	6,386	7,181	94,440	136,005	2,838	1,897	103,664	145,084

The analysis in table 6.4 is provided by contractual maturity. Actual maturities may differ from contractual maturities because certain borrowers have the right to call or prepay certain obligations with or without call or prepayment penalties.

Table 6.5

Investment property

	Total
2022	2021
14,070	14,749
887	866
3	(379)
(256)	(908)
586	454
3	29
(35)	(22)
(459)	(718)
14,798	14,070
	14,070 887 3 (256) 586 3 (35) (459)

Investment property consists of investments in commercial, residential and mixed-use properties primarily located in Germany, U.S. and Switzerland.

Table 6.6

Net unrealized gains/(losses) on Group investments included in equity

Table 0.0		
in USD millions, as of December 31		Total
	2022	2021
Equity securities: available-for-sale	231	2,329
Debt securities: available-for-sale	(10,877)	9,549
Other	101	498
Gross unrealized gains/(losses) on Group investments	(10,545)	12,376
Less amount of unrealized gains/(losses) on investments attributable to:		
Life policyholder dividends and other policyholder liabilities	1,740	(6,444)
Life deferred acquisition costs and present value of future profits	232	(887)
Deferred income taxes	1,660	(940)
Non-controlling interests	67	(23)
Total ¹	(6,846)	4,081

¹ Net unrealized gains/(losses) on Group investments include net gains arising on cash flow hedges of USD 134 million and USD 411 million as of December 31, 2022 and 2021, respectively

Table 6.7

Securities lending, repurchase and reverse repurchase agreements

in USD millions, as of December 31	2022	2021
Securities lending agreements		
Securities lent under securities lending agreements ¹	1	4
Collateral received for securities lending ²	1	5
of which: Non-cash collateral ³	1	5
Repurchase agreements		
Securities sold under repurchase agreements ⁴	1,081	1,390
Obligations to repurchase securities	1,069	1,381

- The Group's counterparties had the right to sell or repledge, in the absence of default, assets pledged as collateral with a fair value of USD 1 million and USD 4 million as of December 31, 2022 and 2021, respectively. The majority of these assets were debt securities.
 Of which, USD 1 million and USD 5 million of securities lending reinvested collateral assets as of December 31, 2022 and as December 31, 2021, respectively.
 The Group had the right to sell or repledge, in the absence of default by its counterparties, securities received as collateral with a fair value of USD 1 million and USD 5 million as of
- December 31, 2022 and 2021, respectively.
- The Group's counterparties had the right to sell or repledge, in the absence of default, assets pledged as collateral with a fair value of USD 0 million and USD 352 million as of December 31, 2022 and 2021, respectively. The majority of these assets were debt securities.

Under the terms of securities lending or repurchase agreements, the Group retains substantially all the risks and rewards of ownership of the transferred securities, and also retains contractual rights to the cash flows from these securities. These securities are therefore not derecognized from the Group's consolidated balance sheet. Cash received as collateral is recorded as an asset, and a corresponding liability is established. Interest expense is charged to income using the effective interest rate method over the life of the agreement.

Under a reverse repurchase agreement, the securities received are not recognized on the Group's consolidated balance sheet, as long as the risk and rewards of ownership have not been transferred to the Group. The cash delivered by the Group is derecognized and a corresponding receivable is recorded within receivables and other assets. Interest income is recognized in income using the effective interest rate method over the life of the agreement.

7. Group derivative financial instruments and hedge accounting

The Group uses derivative financial instruments mainly for economic hedging purposes to mitigate risks. Such risks result from changes in interest rates, equity prices and exchange rates. Derivative financial instruments with a positive fair value are reported in receivables and other assets (see note 15) and those with a negative fair value are reported in other liabilities (see note 16).

Table 7.1 shows the fair value and notional amounts for all group derivatives as of December 31, 2022 and 2021 separated by risks. While these notional amounts express the extent of the Group's involvement in derivative transactions, they do not, however, represent the amounts at risk.

Table 7.1

Maturity profile of notional amounts and fair values of Group derivative financial instruments

in USD millions, as of December 31						2022			2021
	Matu	ırity by notio	nal amount						
		1 to 5		Notional	Positive	Negative	Notional	Positive	Negative
	< 1 year	years	> 5 years	amounts	fair values	fair values	amounts	fair values	fair values
Interest rate contracts ¹	1,664	8,528	3,244	13,436	508	(956)	17,857	738	(296)
Equity contracts	957	342	587	1,887	35	(16)	2,522	57	(65)
Foreign exchange contracts	20,023	579	130	20,732	222	(195)	18,808	143	(171)
Total Group derivative									
financial instruments	22,645	9,449	3,961	36,054	766	(1,167)	39,186	938	(532)
Thereof exchange-traded	414	4	_	418	9	_	511	1	(3)
Thereof OTC	22,231	9,444	3,961	35,636	756	(1,167)	38,676	937	(529)

¹ Include USD 1.2 billion and USD 1.8 billion notional related to derivatives which are centrally cleared for as of December 31, 2022, and 2021, respectively. Please note that derivatives centrally cleared that are not designated under qualifying hedge accounting relationship are presented net of corresponding variation margin payments unde 'Amounts due from investment brokers' (see note 15) and 'Amounts due to investment brokers' (see note 16) as of December 31, 2022 and 2021, respectively.

Interest rate contracts

Interest rate contracts are used to hedge risks from changes in interest rates and to manage asset liability mismatches. Whenever possible the Group enters into exchange-traded contracts, which are standardized and regulated. Furthermore, because of the structure of the exchanges, exchange-traded contracts are not considered to carry counterparty risk. Over-the-counter (OTC) contracts are otherwise entered into and comprised of swaps and swaptions.

Equity contracts

Equity contracts are entered into, either on a portfolio or on a macro level, to protect the fair value of equity investments against a decline in equity market prices or to manage the risk return profile of equity exposures. Short positions are always covered and sometimes used to mitigate hedging costs.

Foreign exchange contracts

Swaps and forward contracts are used to hedge the Group's foreign currency exposures and to manage balance sheet mismatches.

Credit contracts

The Group may from time to time enter into credit contracts. Credit contracts are credit default swaps entered into either on a portfolio or on a macro level to limit market risks arising from the investment portfolios against a change in credit spreads or to manage the risk return profile of the credit exposures. As of December 31, 2022, the Group does not hold credit default swaps.

Other contracts

Other contracts predominantly include stable value products (SVPs) issued to insurance company separate accounts in connection with certain life insurance policies (Bank Owned Life Insurance (BOLI) and Company Owned Life Insurance (COLI)) with an account value of USD 11.0 billion and USD 11.3 billion as of December 31, 2022 and 2021, respectively, and with a market value of the underlying investments of USD 9.9 billion and USD 11.3 billion as of December 31, 2022 and 2021, respectively (not included in the table above). The Group includes the likelihood of surrender as one of the input parameters to determine the fair value of the SVPs, which was nil as of December 31, 2022 and 2021.

In certain circumstances, derivative financial instruments meet the requirements of an effective hedge for accounting purposes. Where this is the case, hedge accounting may be applied. Financial information for these instruments is set out in table 7.2.

Table 7.2

Notional and fair values of Group hedge accounting derivative financial instruments

in USD millions, as of December 31			2022			2021
	Notional	Positive	Negative	Notional	Positive	Negative
	principal	fair	fair	principal	fair	fair
	amounts	values	values	amounts	values	values
Fair value hedge:						
Interest rate contracts	_	_	_	426	11	_
Foreign currency contracts	407	_	(61)	430	7	(55)
Total fair value hedges	407	-	(61)	856	18	(55)
Cash flow hedge:						
Interest rate contracts ¹	3,521	229	(705)	3,396	490	(108)
Foreign currency contracts	740	49	(7)	794	52	(28)
Total cash flow hedges	4,261	278	(712)	4,190	542	(136)
Net investment hedge:						
Foreign currency contracts	2,713	26	(1)	1,932	1	(8)
Total net investment hedges	2,713	26	(1)	1,932	1	(8)

¹ Include USD 326 million and USD 347 million notional related to derivatives which are centrally cleared for as of December 31, 2022, and 2021, respectively (amount for 2021 has been restated).

Fair value hedges

In November 2022, the interest rate swaps to protect the Group against changes in interest rate exposure of debt issued under fair value hedge was discontinued. As from the date of the hedge discontinuation, the hedge adjustment of USD 29 million has been incorporated into the debt's carrying amount and is being amortized through profit or loss through the recalculated effective interest rate over the remaining life of the debt issued.

Information on debt issuances previously designated as hedged items in fair value hedge relationships is set out in note 18.

The Group also has fair value hedge relationships consisting of cross currency swaps and forwards to protect the Group from foreign currency fluctuations of certain fixed income securities and hybrid equity securities denominated in currencies other than the functional currency of the reporting entity.

Forward bonds are used to hedge the fair value of bonds against interest rates movements.

Changes in the fair value of the derivative financial instruments designated as fair value hedges and changes in the fair value of the hedged item in relation to the risk being hedged are both recognized in income.

Table 7.3 sets out gains and losses arising from fair value hedges:

Table 7.3

Gains/(losses) arising from fair value hedges

in USD millions, for the years ended December 31	2022	2021
Gains/(losses)		
on hedging instruments ¹	(29)	(5)
on hedged items attributable to the hedged risk	33	5

¹ Excluding current interest income or expense, which is recognized as an offset on the same line as the interest expense or income of the hedged item

Cash flow hedges

Designated cash flow hedges, such as interest rate swaptions and forwards, are used to protect the Group against variability of future cash flows due to changes in interest rates associated with expected future purchases of debt securities required for certain life insurance policies. The effective portion of the gains and losses on these swaptions is initially recognized in OCI. Subsequently, the gains or losses will be recycled to profit or loss within net investment income on Group investments over the period to December 31, 2036. The gains and losses related to the ineffective portion of these hedges are recognized immediately in income within net capital gains/(losses) on investments and impairments.

The Group also uses interest rate swaps and cross currency swaps for cash flow hedging to protect against the exposure to variability of cash flows attributable to interest rate and currency risk. The hedging instrument is measured at fair value, with the effective portion of changes in its fair value recognized in OCI. The effective portion, related to spot rate changes in the fair value of the hedging instrument, is reclassified to profit or loss within administrative and other operating expense as an offset to foreign currency revaluation on the underlying hedged debt securities. The ineffective portion of the change in fair value is recognized in net capital gains/(losses) and impairments.

The net change of gains/(losses) deferred in OCI on derivative financial instruments designated as cash flow hedges was USD 926 million and USD 338 million before tax for the years ended December 31, 2022 and 2021, respectively.

The Group recognized gains/(losses) of USD 31 million and USD 36 million in the consolidated income statements within net investment income on Group investments for the years ended December 31, 2022 and 2021, respectively. The Group also recognized net gains of USD 32 million and USD 26 million within administrative and other operating expense for the years ended December 31, 2022 and 2021, respectively, as an offset to the foreign currency revaluation on the underlying hedged items.

A nil amount for the years ended December 31, 2022 and 2021, was recognized in net capital gains/(losses) and impairments due to hedge ineffectiveness. The IBOR Reform did not impact the effectiveness of the Group's hedging relationships and it is not expected to have any material impact in the future (see note 2).

Net investment hedges

The Group applies net investment hedge accounting to protect against the effects of changes in exchange rates in its net investments in foreign operations.

Measurement of hedge effectiveness is based on changes in forward rates. Gains and losses on the designated hedging derivative and non-derivative financial instruments related to the effective portion of the hedge are recognized in OCI together with the translation gains and losses on the hedged net investment. The accumulated gains and losses in OCI are reclassified to income on disposal or partial disposal of the foreign operation.

The net change of gains/(losses) deferred in OCI were USD (41) million and USD (69) million before tax for the years ended December 31, 2022 and 2021, respectively as a result of a hedge relationship by foreign exchange forwards and swaps.

The Group has also designated certain debt issuances as hedging instruments on a non-derivative net investment hedge relationship. The notional amount of these financial instruments was USD 12 billion and USD 11 billion for the years ended December 31, 2022 and 2021, respectively. The net gains/(losses) deferred in OCI were USD 187 million and USD 171 million before tax for the years ended December 31, 2022 and 2021, respectively.

Information on debt issuances designated as hedging instruments in a net investment hedge relationship is set out in note 18.

Ineffectiveness of net investment hedges of USD 21 million was recognized in foreign currency translation in administrative and other operating expenses for the years ended December 31, 2022. No ineffectiveness was recognized as of December 31, 2021.

Derivative financial instruments: offsetting of financial assets and liabilities

Table 7.4 shows the net asset and liability position of Group derivative financial instruments subject to enforceable master netting arrangements and collateral agreements. Master netting arrangements are used by the Group to provide protection against loss in the event of bankruptcy or other circumstances that result in a counterparty being unable to meet its obligations. These arrangements commonly create a right of offset that becomes enforceable and affects the realization or settlement of individual financial assets and financial liabilities only following a specified event of default or other circumstances which would not be expected to arise in the normal course of business.

Table 741

Group derivative financial instruments subject to enforceable master netting arrangements and collateral agreements

in USD millions, as of December 31	Deriv	ative assets	Derivat	ive liabilities
	2022	2021	2022	2021
Netting recognized on the balance sheet				
Gross amounts of financial assets and liabilities ²	767	963	(1,167)	(532)
Cash collateral (received)/pledged that are set off ³	(3)	(25)	_	_
Net amount recognized presented in the balance sheet	763	937	(1,167)	(532)
Netting potential not recognized on the balance sheet				
Related amounts not offset	(112)	(27)	108	30
Cash collateral (received)/pledged ³	(612)	(791)	337	268
Non-cash collateral (received)/pledged	(7)	(6)	709	72
Net amount ⁴	32	113	(8)	(163)

¹ In 2022, the Group changed the presentation of table 7.4 to reflect derivative financial instruments subject to enforceable master netting and other collateral agreements in ccordance with best market practices as well SASB disclosures requirements

² Includes USD 49.4 million and USD 0 million of derivative assets and USD 24.8 million and USD 22.0 million of derivative liabilities centrally cleared before netting against variation margin as of December 31, 2022 and 2021, respectively.

3 Includes USD 48.9 million and USD 25.4 million of cash collateral for derivative assets as well as USD 0 million and USD 22 million of cash collateral for derivatives liabilities

centrally cleared reflected through central counterparty (CCP) as of December 31, 2022 and 2021, respectively.

Includes USD 0.4 million and USD (0.6) million of total potential exposure to centrally cleared derivatives as of December 31, 2022 and 2021, respectively.

8. Liabilities for insurance contracts and reinsurers' share of liabilities for insurance contracts

Table 8.1

Liabilities for insurance contracts

in USD millions, as of December 31		Gross		Ceded		Net
	2022	2021	2022	2021	2022	2021
Reserves for losses and loss adjustment expenses	63,560	63,577	(14,640)	(14,578)	48,920	48,998
Reserves for unearned premiums	22,124	19,909	(4,245)	(3,887)	17,879	16,022
Future life policyholder benefits	50,275	73,977	(3,758)	(4,096)	46,517	69,881
Policyholder contract deposits and other funds	16,849	28,052	(3,063)	(3,159)	13,786	24,893
Reserves for unit-linked insurance contracts	72,078	82,524	_	_	72,078	82,524
Other insurance liabilities	4,869	4,668	_	(1)	4,869	4,667
Total liabilities for insurance contracts ¹	229,755	272,707	(25,706)	(25,722)	204,049	246,985

¹ Total liabilities for insurance contracts ceded are gross of allowances for uncollectible amounts of USD 39 million and USD 41 million as of December 31, 2022 and 2021, respectively.

Table 8.2

Discounted reserves for losses and loss adjustment expenses

in USD millions, as of December 31		Gross		Ceded		Net
	2022	2021	2022	2021	2022	2021
Reserves for losses and loss adjustment expenses	63,560	63,577	(14,640)	(14,578)	48,920	48,998
of which: Discounted reserves	3,210	3,312	(41)	(45)	3,169	3,267
Discount effect	1,335	1,051	(15)	(18)	1,320	1,033
Undiscounted reserves for losses and loss						
adjustment expenses	64,895	64,627	(14,655)	(14,596)	50,240	50,031
of which: Undiscounted amount of discounted						
reserves	4,545	4,362	(56)	(63)	4,490	4,300
Average discount rate	6.7%	3.2%	1.3%	1.7%	6.7%	3.3%

Table 8.3

Development of reserves for losses and loss adjustment expenses

in USD millions		Gross		Ceded		Net
	2022	2021	2022	2021	2022	2021
As of January 1	63,577	63,327	(14,578)	(14,375)	48,998	48,951
Losses and loss adjustment expenses incurred:						
Current year	26,317	24,631	(5,363)	(5,231)	20,954	19,400
Prior years	(455)	(961)	(76)	361	(531)	(600)
Total incurred	25,863	23,670	(5,439)	(4,870)	20,423	18,800
Losses and loss adjustment expenses paid:						
Current year	(9,634)	(8,821)	1,020	969	(8,614)	(7,852)
Prior years	(14,644)	(13,581)	4,242	3,825	(10,402)	(9,756)
Total paid	(24,278)	(22,401)	5,262	4,794	(19,016)	(17,607)
Interest effects of discounted reserves	64	163	(1)	(4)	63	159
Acquisitions/(divestments) and transfers ¹	106	155	(112)	(327)	(6)	(171)
Foreign currency translation effects	(1,771)	(1,337)	228	204	(1,542)	(1,133)
As of December 31	63,560	63,577	(14,640)	(14,578)	48,920	48,998

¹ In 2022, net reserves decreased by USD 6 million following the sale of the Joint Stock Company Insurance Company (Zurich Russia) (see note 5). In 2021, the Group reclassified USD 145 million of net reserves to assets and liabilities held for sale of Zurich Insurance plc (Spain Medical Malpractice portfolio) (see note 5).

The Group establishes loss reserves, which are estimates of future payments of reported and unreported claims for losses and related expenses, with respect to insured events that have occurred. Reserving is a complex process dealing with uncertainty, requiring the use of informed estimates and judgments. Any changes in estimates or judgments are reflected in the results of operations in the period in which estimates and judgments are changed.

Significant delays may occur in the notification and settlement of claims, and a substantial measure of experience and judgment is involved in assessing outstanding liabilities, the ultimate cost of which cannot be known with certainty as of the balance sheet date. The reserves for losses and loss adjustment expenses are determined on the basis of the information available. However, it is inherent in the nature of the business written that the ultimate liabilities may vary as a result of subsequent developments.

For the year ended December 31, 2022, the decrease of USD 78 million in net reserves for losses and loss adjustment expenses is mainly the result of foreign exchange-related reserve decreases partially offset by an increase in reserves driven by large losses in Europe, Middle East and Africa (EMEA), portfolio growth in Asia Pacific and reinsurance recoveries received.

Net favorable reserve development emerged from reserves established in prior years amounting to USD 531 million mainly related to the following:

- In EMEA, favorable prior year development of USD 172 million driven by retail motor and commercial property and specialties;
- In North America, favorable prior year development of USD 271 million driven by specialties and workers' injury.

For the year ended December 31, 2021, the increase of USD 47 million in net reserves for losses and loss adjustment expenses is the result of an increase in reserves following natural catastrophe losses in North America including the Texas freeze event and Hurricane Ida and also in EMEA being offset by foreign exchange-related reserve decreases.

Net favorable reserve development emerged from reserves established in prior years amounting to USD 600 million mainly related to the following:

- In EMEA, favorable prior year development of USD 143 million driven by retail motor;
- In North America, favorable prior year development of USD 509 million driven by workers' injury.

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Development of insurance losses, net

Table 8.4										
in USD millions, as of December 31	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Gross reserves for losses and										
loss adjustment expenses										
(undiscounted)	68,312	64,472	62,971	62,254	66,715	62,187	60,384	64,492	64,627	64,895
Reinsurance recoverable										
(undiscounted)	(10,993)	(9,770)	(9,231)	(9,796)	(11,092)	(11,561)	(12,161)	(14,398)	(14,596)	(14,655)
Initial net reserves for losses			, , ,	, , ,	, , ,			, , ,	, , ,	, , ,
and loss adjustment expenses	57,319	54,703	53,739	52,458	55,623	50,627	48,223	50,094	50,031	50,240
										,
Cumulative paid as of:										
One year later	(13,301)	(12,576)	(11,690)	(10,994)	(11,586)	(10,831)	(9,921)	(9,756)	(10,402)	
Two years later	(21,002)	(19,460)	(18,562)	(17,808)		(16,727)	(15,594)	(15,762)	, , ,	
Three years later	(26,021)		(23,590)	(22,540)		(20,805)		(-, - ,		
Four years later	(29,851)	(28,105)	(27,106)	(25,764)		(24,258)	(==,==,			
Five years later	(32,509)	(30,667)	(29,569)	(28,012)		(2 1,200)				
Six years later	(34,426)	(32,375)			(=0,±00)					
Seven years later	(35,728)	(33,639)		,20,010)						
Eight years later	(36,687)	(34,655)	102,000)							
Nine years later	(37,573)	(0 7,000)								
Tanto yours latel	(07,070)									
Cumulative Change in										
Reserves:										
One year later	(59)	149	(479)	(326)	(674)	(583)	(408)	(600)	(531)	
Two years later	(139)	(25)	(1,106)	(1,043)	(1,516)	(1,429)	(1,073)	(1,206)	(331)	
Three years later	(72)	(438)	(1,666)	(1,043)	(2,372)	(2,017)	(1,567)	(1,200)		
	(214)	(823)	,		(3,027)		(1,507)			
Four years later		(1,382)	(2,402)	(2,920)	(3,778)	(2,725)				
Five years later	(576)	(2,046)		(3,487)	(3,770)					
Six years later	(1,041)		(3,663)	(4,190)						
Seven years later	(1,539)	(2,344)	(4,153)							
Eight years later	(1,827)	(2,752)								
Nine years later	(1,952)									
Nist weeks a second										
Net undiscounted reserves										
reestimated1:										
One year later	57,259	54,852	53,260	52,131	54,949	50,044	47,815	49,494	49,500	
Two years later	57,180	54,677	52,633	51,415	54,108	49,197	47,150	48,888		
Three years later	57,246	54,265	52,073	50,462	53,251	48,610	46,656			
Four years later	57,105	53,880	51,337	49,538	52,597	47,901				
Five years later	56,743	53,321	50,482	48,971	51,845					
Six years later	56,278	52,657	50,076	48,268						
Seven years later	55,780	52,359	49,586							
Eight years later	55,492	51,951								
Nine years later	55,367									
Cumulative (deficiency)/										
redundancy of net reserves	1,952	2,752	4,153	4,190	3,778	2,725	1,567	1,206	531	
Cumulative (deficiency)/										
redundancy as a percentage										
of initial net reserves	3.4%	5.0%	7.7%	8.0%	6.8%	5.4%	3.2%	2.4%	1.1%	
Gross reserves reestimated	64,954	60,803	57,948	56,806	62,565	59,592	59,742	62,815	64,172	
Cumulative (deficiency)/										
redundancy of gross reserves ²	3,358	3,670	5,023	5,448	4,150	2,595	641	1,677	455	
Cumulative (deficiency)/										
redundancy as a percentage										
of initial gross reserves	4.9%	5.7%	8.0%	8.8%	6.2%	4.2%	1.1%	2.6%	0.7%	
	•			2.2 0		•			•	

Undiscounted amounts starting 2016, prior years are shown discounted.
 In 2020, changes to incurred gross prior year losses and loss adjustment expenses relate largely to business with limited net impact to the Group such as liabilities related to captive business, development in losses related to 2017 catastrophe events that are substantially reinsured, and participation in large claims related to business where the Group retains only a portion of the overall loss.

Table 8.4 presents changes in the historical reserves for losses and loss adjustment expenses, net of reinsurance, that the Group established in 2013 and subsequent years. Reserves are presented by financial year, not by accident year. The reserves (and the development thereof) are for all accident years in that financial year. The top line of the table shows the estimated gross reserves for unpaid losses and loss adjustment expenses as of each balance sheet date, which represents the estimated amount of future payments for losses incurred in that year and in prior years. The cumulative paid portion of the table presents the cumulative amounts paid through each subsequent year in respect of the reserves established at each year end. Similarly, the cumulative change in reserves section details the cumulative changes in loss reserves at the end of each financial year. The net undiscounted reserves reestimated portion of the table shows the reestimation of the initially recorded reserve as of each succeeding year end. Reserve development is shown in each column. Changes to estimates are made as more information becomes known about the actual losses for which the initial reserves were established. The cumulative deficiency or redundancy is equal to the initial net reserves less the liability reestimated as of December 31, 2022. It is the difference between the initial net reserve estimate and the last entry of the diagonal in the net undiscounted reserves reestimated portion of the table. Conditions and trends that have affected the development of reserves for losses and loss adjustment expenses in the past may or may not necessarily occur in the future, and accordingly, conclusions about future results cannot be derived from the information presented in table 8.4.

The Group has considered asbestos, including latent injury, claims and claims expenses in establishing the reserves for losses and loss adjustment expenses. The Group continues to be advised of indemnity claims asserting injuries from asbestos. Coverage and claim settlement issues, such as determination that coverage exists and the definition of an occurrence, together with increased medical diagnostic capabilities and awareness have often caused actual loss development to exhibit more variation than in other lines of business. Such claims require specialized reserving techniques and the uncertainty of the ultimate cost of these types of claims has tended to be greater than the uncertainty related to standard lines of business.

Net reserves for losses and loss adjustment expenses for asbestos amounted to USD 109 million and USD 124 million for the years ended December 31, 2022 and 2021, respectively.

Table 8.5

Development of future life policyholder benefits

Table 0.5						
in USD millions		Gross		Ceded		Net
	2022	2021	2022	2021	2022	2021
As of January 1	73,977	83,958	(4,096)	(4,256)	69,881	79,703
Premiums	11,379	12,653	(1,480)	(1,717)	9,899	10,937
Claims	(9,787)	(10,902)	1,125	1,324	(8,662)	(9,578)
Fee income and other expenses	(4,824)	(4,341)	577	451	(4,247)	(3,890)
Interest and bonuses credited to policyholders	1,214	1,634	(52)	(73)	1,162	1,561
Changes in assumptions	(19)	14	(1)	-	(19)	14
Acquisitions/(divestments) and transfers ¹	(17,728)	(3,411)	_	11	(17,728)	(3,399)
Increase/(decrease) recorded in						
other comprehensive income	(1,085)	(1,135)	_	-	(1,085)	(1,135)
Foreign currency translation effects	(2,852)	(4,494)	169	163	(2,683)	(4,331)
As of December 31	50,275	73,977	(3,758)	(4,096)	46,517	69,881

¹ The 2022 net movement is mainly related to an agreement entered into by Zurich Investments Life S.p.A to sell part of its life and pension back book (see note 5) and an agreement entered into by Zurich Deutscher Herold Lebensversicherung Aktiengesellschaft to sell its legacy traditional life insurance book (see note 5). The 2021 net movement is mainly related to an agreement entered into by Zurich Investments Life S.p.A. to sell part of its life and pension back book (see note 5).

Long-duration contract liabilities included in future life policyholder benefits result primarily from traditional participating and non-participating life insurance products. Short-duration contract liabilities are primarily accident and health insurance products.

Future life policyholder benefits are generally calculated by a net premium valuation. In terms of U.S. dollars, the weighted average discount rate used in the calculation of future life policyholder benefits is 2.1 percent and 2.2 percent as of December 31, 2022 and 2021, respectively.

The amount of policyholder dividends to be paid is determined annually by each life insurance subsidiary. Policyholder dividends include life policyholder share of net income and unrealized appreciation of investments that are required to be allocated by the insurance contract or by local insurance regulations. Experience adjustments related to future policyholder benefits and policyholder contract deposits vary according to the type of contract and the country. Investment, mortality and morbidity results may be passed through by experience credits or as an adjustment to the premium mechanism, subject to local regulatory provisions.

The net impact of changes in assumptions on future life policyholder benefits by type of assumption is shown in table 8.6.

Table 8.6

Effect of changes in assumptions for future life policyholder benefits

14515 6.5		
in USD millions, for the years ended December 31	2022	2021
Interest rates	(8)	5
Investment return	(24)	9
Expense	(2)	1
Morbidity	40	3
Longevity	(24)	(2)
Lapses	6	(1)
Other	(6)	(3)
Net impact of changes in assumptions	(19)	12

Table 8.7

Policyholder contract deposits and other funds gross

in USD millions, as of December 31	2022	2021
Universal life and other contracts	14,481	14,571
Policyholder dividends	2,368	13,482
Total	16,849	28,052

Table 8.8

Development of policyholder contract deposits and other funds

in USD millions		Gross		Ceded		Net
	2022	2021	2022	2021	2022	2021
As of January 1	28,052	31,497	(3,159)	(3,236)	24,893	28,261
Premiums	1,232	1,334	(58)	(69)	1,174	1,264
Claims	(1,312)	(1,308)	253	261	(1,058)	(1,047)
Fee income and other expenses	(431)	(485)	10	_	(421)	(485)
Interest and bonuses credited to policyholders	510	1,125	(109)	(115)	401	1,009
Acquisitions/(divestments) and transfers ¹	(1,580)	-	_	-	(1,580)	_
Increase/(decrease) recorded in						
other comprehensive income	(8,359)	(2,602)	_	_	(8,359)	(2,602)
Foreign currency translation effects	(1,263)	(1,508)	_	_	(1,263)	(1,508)
As of December 31	16,849	28,052	(3,063)	(3,159)	13,786	24,893

¹ The 2022 net movement is mainly related to an agreement entered into by Zurich Deutscher Herold Lebensversicherung Aktiengesellschaft to sell its legacy traditional life insurance book (see note 5).

Tables 8.9a and 8.9b provide an analysis of the expected maturity profile of reserves for insurance contracts, net of reinsurance, based on expected cash flows without considering the surrender values as of December 31, 2022 and 2021. Reserves for unit-linked insurance contracts amounting to USD 72 billion and USD 83 billion as of December 31, 2022 and 2021, respectively, are not included, as policyholders can generally surrender their contracts at any time, at which point the underlying unit-linked assets would be liquidated. Risks from the liquidation of unit-linked assets are largely borne by the policyholders of unit-linked contracts.

Table 8.9a

Expected maturity profile for reserves for insurance contracts, net of reinsurance – current period

14010 0.04				
in USD millions, as of December 31,	Reserves for losses	Future life	Policyholder	
2022	and loss adjustment	policyholder	contract deposits	
	expenses	benefits	and other funds	Total
< 1 year	14,790	11,489	1,635	27,914
1 to 5 years	18,407	7,067	1,597	27,071
5 to 10 years	5,834	4,467	1,835	12,136
10 to 20 years	4,307	4,518	2,170	10,995
> 20 years	5,582	18,976	6,549	31,107
Total	48.920	46.517	13.786	109,223

Table 8.9b

Expected maturity profile for reserves for insurance contracts, net of reinsurance – prior period

Table 0.9b				
in USD millions, as of December 31,	Reserves for losses	Future life	Policyholder	
2021	and loss adjustment	policyholder	contract deposits	
	expenses	benefits	and other funds	Total
< 1 year	15,176	14,704	1,817	31,697
1 to 5 years	18,008	13,674	2,173	33,855
5 to 10 years	5,748	11,306	2,589	19,643
10 to 20 years	4,427	8,791	2,649	15,868
> 20 years	5,639	21,406	15,665	42,709
Total	48,998	69,881	24,893	143,772

9. Liabilities for investment contracts

Table 9.1

Liabilities for investment contracts

in USD millions, as of December 31	2022	2021
Unit-linked investment contracts	50,991	60,930
Investment contracts (amortized cost)	769	837
Investment contracts with DPF	5,696	7,088
Total	57,456	68,855

Unit-linked investment contracts issued by the Group are recorded at a value reflecting the returns on investment funds which include selected equities, debt securities and derivative financial instruments. Policyholders bear the full risk of the returns on these investments.

The value of financial liabilities at amortized cost is based on a discounted cash flow valuation technique. The initial valuation of the discount rate is determined by the current market assessment of the time value of money and risk specific to the liability.

Table 9.2

Development of liabilities for investment contracts

Table 9.2		
in USD millions	2022	2021
As of January 1	68,855	69,507
Premiums	5,990	7,054
Claims	(5,614)	(6,812)
Fee income and other expenses	(430)	(478)
Interest and bonuses credited to policyholders	(5,666)	7,912
Acquisitions/(divestments) and transfers ¹	800	(4,394)
Increase/(decrease) recorded in other comprehensive income	(1,095)	(504)
Foreign currency translation effects	(5,384)	(3,430)
As of December 31	57,456	68,855

¹ As of December 31, 2022, the net carrying amount of liabilities previously held for sale decreased by USD 800 million compared to the amount of USD 4.4 billion that had been reclassified as of December 31, 2021, based on agreements to sell part of the life and pension back book of Zurich Investments Life S.p.A (see note 5).

Tables 9.3a and 9.3b provide an analysis of investment contract liabilities according to maturity, based on expected cash flows as of December 31, 2022 and 2021. The undiscounted contractual cash flows for investment contract liabilities are USD 57 billion as of December 31, 2022 and USD 69 billion as of December 31, 2021. Liabilities for unit-linked investment contracts amounted to USD 51 billion and USD 61 billion as of December 31, 2022 and 2021, respectively. Policyholders of unit-linked investment contracts can generally surrender their contracts at any time, leading the underlying assets to be liquidated. Risks arising from liquidation of unit-linked assets are borne by the policyholders. Certain non-unit-linked contracts also allow for surrender of the contract by the policyholder at any time. Liabilities for such contracts amounted to USD 333 million and USD 416 million as of December 31, 2022 and 2021, respectively. The Group actively manages the Life in-force business to improve persistency and retention.

Table 9.3a

Expected maturity profile for liabilities for investment contracts current period

14510 0.04				
in USD millions, as of December 31,			Liabilities related to	
2022	Liabilities related to	Liabilities related to	investment contracts	
	unit-linked investment	investment contracts	with discretionary	
	contracts	(amortized cost)	participation features	Total
< 1 year	3,423	563	368	4,354
1 to 5 years	7,627	82	1,421	9,131
5 to 10 years	8,244	47	603	8,895
10 to 20 years	6,567	46	744	7,358
> 20 years	25,129	30	2,559	27,719
Total	50,991	769	5,696	57,456

Expected maturity profile for liabilities for investment contracts prior period

Table 9.3b				
in USD millions, as of December 31,			Liabilities related to	
2021	Liabilities related to	Liabilities related to	investment contracts	
	unit-linked investment	investment contracts	with discretionary	
	contracts	(amortized cost)	participation features	Total
< 1 year	4,142	615	267	5,025
1 to 5 years	9,204	83	1,863	11,151
5 to 10 years	10,317	51	736	11,104
10 to 20 years	8,605	50	977	9,632
> 20 years	28,661	37	3,245	31,944
Total	60,930	837	7,088	68,855

10. Gross and ceded insurance revenues and expenses

Table 10.1

Insurance benefits and losses

in USD millions, for the years ended December 31		Gross		Ceded		Net
	2022	2021	2022	2021	2022	2021
Losses and loss adjustment expenses	25,863	23,670	(5,439)	(4,870)	20,423	18,800
Life insurance death and other benefits	8,713	10,800	(933)	(1,316)	7,780	9,484
Total insurance benefits and losses	34.576	34,470	(6.372)	(6,186)	28.204	28.284

Table 10.2

Policyholder dividends and participation in profits

100.0 20.2		
in USD millions, for the years ended December 31	2022	2021
Change in policyholder contract deposits and other funds	232	794
Change in reserves for unit-linked insurance contracts	(6,521)	6,834
Change in liabilities for investment contracts – unit-linked	(5,799)	7,598
Change in liabilities for investment contracts – other	140	187
Change in unit-linked liabilities related to UK capital gains tax	157	(219)
Total policyholder dividends and participation in profits	(11,791)	15,195

Table 10.3

Underwriting and policy acquisition costs

in USD millions, for the years ended December 31		Gross		Ceded		Net
•	2022	2021	2022	2021	2022	2021
Amortization of deferred acquisition costs	7,989	7,116	(817)	(763)	7,172	6,353
Amortization of deferred origination costs	59	67	_	_	59	67
Commissions and other underwriting						
and acquisition expenses ¹	3,247	3,354	(605)	(561)	2,642	2,793
Total underwriting and policy acquisition costs	11,295	10,537	(1,422)	(1,324)	9,873	9,213

¹ Net of additions related to deferred acquisition and origination costs.

Table 10.4

Change in reserves for unearned premiums

in USD millions, for the years ended December 31		Gross		Ceded	Net	
	2022	2021	2022	2021	2022	2021
Change in reserves for unearned premiums	3.033	2.023	(464)	(248)	2.569	1.776

11. Deferred policy acquisition costs and deferred origination costs

Table 11.1

Development of deferred policy acquisition costs

in USD millions	Property & Casualty			Life	Other b	Total		
	2022	2021	2022	2021	2022	2021	2022	2021
As of January 1	6,359	5,984	12,201	12,248	1,886	1,789	20,446	20,021
Acquisition costs deferred	5,983	5,395	1,642	1,749	423	202	8,048	7,347
Amortization	(5,419)	(4,839)	(1,555)	(1,359)	(185)	(139)	(7,160)	(6,337)
Impairments	_	(2)	(2)	(118)	-	-	(2)	(120)
Amortization (charged)/								
credited to other								
comprehensive income	_	-	1,141	268	150	32	1,291	300
Acquisitions/(divestments)								
and transfers ²	_	_	(920)	2	_	_	(919)	2
Foreign currency								
translation effects	(163)	(179)	(830)	(588)	_	1	(993)	(766)
As of December 31	6,759	6,359	11,677	12,201	2,274	1,886	20,711	20,446

Table 11.2

Development of deferred origination costs

TODIO II.Z		
in USD millions	2022	2021
As of January 1	441	426
Origination costs deferred	81	105
Amortization	(59)	(67)
Acquisitions/(divestments) and transfers	(1)	2
Foreign currency translation effects	(30)	(25)
As of December 31	431	441

Net of eliminations from inter-segment transactions.
 In 2022, the movement in Life is mainly related to an agreement entered into by Zurich Deutscher Herold Lebensversicherung Aktiengesellschaft to sell its legacy traditional life insurance book (see note 5). In 2021, the movement in Life of USD 2 million is related to an agreement entered by Zurich International Life Limited to sell an insurance portfolio of USD 3 million, offset by an agreement with GamaLife – Companhia de Seguros de Vida S.A. to sell an insurance portfolio of USD 5 million (see note 5).

12. Expenses

Table 12 shows expenses by functional area and by type of expense.

Table 12

Expenses

in USD millions, for the years ended December 31	2022	2021
Administrative and other operating expenses	8,665	8,794
Underwriting and policy acquisition costs, net of reinsurance	9,873	9,213
Claims handling expenses ¹	2,461	2,515
Investment expenses	377	365
Total	21,375	20,887
of which:		
Personnel and other related costs	6,701	6,691
Building and infrastructure costs	472	526
Brand and marketing expenses	636	694
Commissions (net of DAC)	7,558	7,260
Premium taxes (net of DAC)	643	601
Asset and other non-income taxes	80	42
IT expenses	2,023	2,046
Outsourcing and professional services	2,086	2,047
Foreign currency translation	137	158
Other	1,037	823
Total	21,375	20,887

¹ Included within losses and loss adjustment expenses (see table 10.1).

13. Property and equipment

Buildings held for own use and equipment are carried at cost less accumulated depreciation and any accumulated impairment loss. Generally, these assets are depreciated on a straight-line basis to profit or loss over the following estimated useful lives:

- buildings 25 to 50 years;
- furniture and fixtures 5 to 10 years;
- computer equipment 3 to 6 years;
- other equipment 6 to 10 years (or determined by the term of lease).

Land held for own use is carried at cost less any accumulated impairment loss.

The right-of-use asset is measured at cost less any accumulated depreciation and impairment losses, and adjusted for any remeasurement of the lease liability. The right-of-use asset is depreciated over the shorter of the leased asset's useful life or the lease term on a straight-line basis.

Table 13.1

Property and equipment overview

in USD millions, as of December 31		Real Estate		Total		
	2022	2021	2022	2021	2022	2021
Right-of-use	1,303	1,412	47	59	1,349	1,471
Owned and subject to operating lease	436	501	439	464	876	965
Total	1,739	1,912	486	523	2,225	2,436

Table 13.2

Property and equipment – current period

in USD millions		F	Real Estate		Е	Equipment		Total	
							Owned		
							incl.		
		Right-			Right-		operating	Right-	
	Owned	of-use	Total	Owned	of-use	Total	lease	of-use	Total
Gross carrying value as of									
January 1, 2022	571	2,533	3,104	1,349	103	1,452	1,920	2,636	4,556
Less: accumulated									
depreciation/impairments	(70)	(1,121)	(1,191)	(885)	(44)	(929)	(955)	(1,165)	(2,120)
Net carrying value as of									
January 1, 2022	501	1,412	1,912	464	59	523	965	1,471	2,436
Additions and improvements	22	55	76	105	14	119	127	68	195
Lease modifications	_	42	42	_	_	_	_	42	42
Depreciation and									
impairments	(11)	(175)	(187)	(107)	(19)	(126)	(118)	(194)	(312)
Acquisitions/(divestments)									
and transfers	(61)	14	(47)	(8)	(5)	(13)	(69)	10	(59)
Foreign currency translation									
effects	(14)	(45)	(59)	(14)	(3)	(17)	(29)	(47)	(76)
Net carrying value as of									
December 31, 2022	436	1,303	1,739	439	47	486	876	1,349	2,225
Plus: accumulated									
depreciation/impairments	93	1,188	1,281	881	51	932	974	1,239	2,213
Gross carrying value as of									
December 31, 2022	529	2,490	3,020	1,320	97	1,418	1,850	2,588	4,437

Table 13.3

Property and equipment prior period

in USD millions		F	Real Estate		Е	quipment		Total	
							Owned		
							incl.		
		Right-			Right-		operating	Right-	
	Owned	of-use	Total	Owned	of-use	Total	lease	of-use	Total
Gross carrying value as of									
January 1, 2021	661	2,637	3,298	1,394	94	1,488	2,055	2,731	4,785
Less: accumulated									
depreciation/impairments	(134)	(1,029)	(1,163)	(871)	(46)	(918)	(1,005)	(1,075)	(2,081)
Net carrying value as of									
January 1, 2021	527	1,608	2,135	523	47	570	1,050	1,655	2,705
Additions and improvements	96	76	172	92	35	127	188	111	299
Lease modifications	_	(17)	(17)	_	_	_	_	(16)	(16)
Depreciation and									
impairments	(8)	(200)	(208)	(120)	(20)	(140)	(129)	(220)	(348)
Acquisitions/(divestments)									
and transfers	(97)	(7)	(104)	(14)	(3)	(17)	(111)	(10)	(121)
Foreign currency									
translation effects	(17)	(49)	(66)	(16)	(1)	(17)	(33)	(49)	(82)
Net carrying value as of									
December 31, 2021	501	1,412	1,912	464	59	523	965	1,471	2,436
Plus: accumulated									
depreciation/impairments	70	1,121	1,191	885	44	929	955	1,165	2,120
Gross carrying value as of									
December 31, 2021	571	2,533	3,104	1,349	103	1,452	1,920	2,636	4,556

Table 13.4

Lessee – lease expenses and income

in USD millions, for the years ended December 31	2022	2021
Lease expenses ¹		
Interest expense on lease liabilities ²	37	43
Short-term lease expenses	8	12
Low-value asset lease expenses	27	30
Lease income		
Income from subleasing right-of-use assets	9	14

Total cash outflow for leases amounts to USD 291 million and USD 312 million as of December 31, 2022 and 2021, respectively, excluding future cash outflows due to extension & termination options of USD 1.9 billion and USD 2.0 billion as of December 31, 2022 and 2021, respectively.
 Included in 'Interest credited to policyholders and other interest.'

Table 13.5

Lessor – finance lease and operating lease income

in USD millions, for the years ended December 31	2022	2021
Finance lease		
Selling profit/(loss)	_	(2)
Interest income on finance lease receivables	64	66
Total	64	64
Operating lease		
Operating lease income – property and equipment	4	9
Operating lease income – investment property	590	626
Total	595	635

Table 13.6

Maturity schedule – finance lease receivable

in USD millions, as of December 31	2022									
	Carrying	Unearned	Undiscounted	Carrying	Unearned	Undiscounted				
	value	interest	cash flows	value	interest	cash flows				
< 1 year	40	3	43	113	9	122				
1 to 2 years	103	3	105	30	9	39				
2 to 3 years	34	2	36	95	7	102				
3 to 4 years	36	7	43	25	3	29				
4 to 5 years	29	5	34	27	7	33				
> 5 years	294	259	553	229	162	391				
Total	534	280	814	518	197	715				

Table 13.7

Maturity schedule – operating lease payments to be received

in USD millions, as of December 31	Undiscounted	Undiscounted cash flows		
	2022	2021		
<1 year	483	494		
1 to 2 years	366	347		
2 to 3 years	313	289		
3 to 4 years	238	245		
4 to 5 years	205	198		
> 5 years	865	978		
Total	2,468	2,550		

14. Attorney-in-fact contracts, goodwill and other intangible assets

Table 14.1

Intangible assets by business – current period

10010 11.1							
in USD millions,	Attorney-						
as of December 31, 2022	in-fact			Distribution			
	contracts	Goodwill	PVFP	agreements	Software	Other	Total
Property & Casualty	_	1,760	_	696	827	163	3,446
Life	_	1,413	281	1,391	46	163	3,294
Farmers	2,650	1,237	57	_	469	309	4,723
Group Functions and							
Operations	_	10	_	_	43	_	53
Net carrying value	2,650	4,420	338	2,087	1,385	636	11,516

Table 14.2

Intangible assets by business – prior period

Net carrying value	2,650	4,344	375	2,185	1,387	537	11,478
Operations	_	9	_	_	37	_	47
Group Functions and							
Farmers	2,650	1,237	32	_	500	347	4,766
Life	_	1,277	344	1,471	51	23	3,166
Property & Casualty	_	1,820	_	714	798	167	3,499
	contracts	Goodwill	PVFP	agreements	Software	Other	Total
as of December 31, 2021	in-fact			Distribution			
in USD millions,	Attorney-						
Table 14.2							

Table 143

Intangible assets – current period

Table 14.3							
in USD millions	Attorney-						
	in-fact			Distribution			
	contracts	Goodwill	PVFP	agreements	Software ¹	Other	Total
Gross carrying value as of							
January 1, 2022	2,650	4,617	2,555	4,021	5,258	683	19,785
Less: accumulated							
amortization/impairments	_	(274)	(2,180)	(1,836)	(3,871)	(147)	(8,307)
Net carrying value as of							
January 1, 2022	2,650	4,344	375	2,185	1,387	537	11,478
Additions and acquisitions	_	212	_	58	370	152	793
Divestments and transfers ²	_	(6)	(66)	(10)	(7)	_	(89)
Amortization ³	_	_	(24)	(90)	(321)	(50)	(484)
Amortization charged to							
other comprehensive income	_		67	_	_	_	67
Impairments	_	_	_	(3)	(5)	_	(8)
Foreign currency translation							
effects	_	(130)	(15)	(52)	(40)	(4)	(241)
Net carrying value as of							
December 31, 2022	2,650	4,420	338	2,087	1,385	636	11,516
Plus: accumulated							
amortization/impairments	_	256	1,856	1,870	4,053	185	8,219
Gross carrying value as of							
December 31, 2022	2,650	4,677	2,193	3,956	5,438	821	19,735

¹ For the year ended December 31, 2022, Farmers Group, Inc. has USD 1.3 billion of fully amortized software, which is still in use.

As of December 31, 2022, intangible assets related to non-controlling interests were USD 34 million for present value of future profits (PVFP) of acquired insurance contracts, USD 841 million for distribution agreements, USD 9 million for software, USD 39 million for goodwill and USD 1 million for other intangible assets.

In 2022, as a result of the acquisition of the network of Financial Advisors of the Deutsche Bank Group in Italy, intangible assets increased by USD 348 million, of which USD 211 million is goodwill, USD 1 million is software and USD 136 million is other intangible assets (see note 5).

² PVFP divestment of USD 66 million is related to Zurich Deutscher Herold Lebensversicherung Aktiengesellschaft, which agreed to sell its legacy traditional life insurance back book (see note 5).

³ Amortization of distribution agreements is included within underwriting and policy acquisition costs.

Table 14.4

Intangible assets prior period

in USD millions	Attorney-						
	in-fact			Distribution			
	contracts	Goodwill	PVFP	agreements	Software ¹	Other	Total
Gross carrying value as of							
January 1, 2021	1,025	4,412	2,649	4,273	5,030	340	17,730
Less: accumulated							
amortization/impairments	_	(323)	(2,236)	(1,885)	(3,810)	(131)	(8,385)
Net carrying value as of							
January 1, 2021	1,025	4,089	413	2,388	1,221	209	9,345
Additions and acquisitions	1,625	418	-	81	529	375	3,029
Divestments and transfers	_	(19)	_	_	(20)	_	(39)
Amortization ²	_	_	(41)	(107)	(288)	(39)	(475)
Amortization charged to							
other comprehensive income	_	_	26	_	_	_	26
Impairments	_	(5)	_	_	(16)	(4)	(25)
Foreign currency translation							
effects	_	(140)	(23)	(177)	(38)	(4)	(382)
Net carrying value as of							
December 31, 2021	2,650	4,344	375	2,185	1,387	537	11,478
Plus: accumulated							
amortization/impairments	_	274	2,180	1,836	3,871	147	8,307
Gross carrying value as of							
December 31, 2021	2,650	4,617	2,555	4,021	5,258	683	19,785

¹ For the year ended December 31, 2021, Farmers Group, Inc. has USD 1.3 billion of fully amortized software, which is still in use 2 Amortization of distribution agreements is included within underwriting and policy acquisition costs.

As of December 31, 2021, intangible assets related to non-controlling interests were USD 41 million for present value of future profits (PVFP) of acquired insurance contracts, USD 888 million for distribution agreements, USD 9 million for software, USD 43 million for goodwill and USD 2 million for other intangible assets.

In 2021, as a result of the acquisition of MetLife's property and casualty (P&C) business in the U.S., intangible assets increased by USD 2,571 million, of which USD 1,625 million is Attorney-in-fact relationships, USD 418 million is goodwill, USD 153 million is software and USD 375 million is other intangible assets (see note 5).

The Group performs quantitative tests of goodwill recoverability annually during the third quarter by applying a reasonably possible change to each of the key assumptions to capture potential future variations in market conditions: a decrease in cash flows of up to 20 percent, an increase in the discount rate of 1.0 percentage point and a decrease in the perpetual growth rate of 1.0 percentage point. Under each individual scenario, reasonably possible changes in key assumptions did not impair goodwill and attorney-in-fact (AIF) contracts. The Group's quantitative tests support the carrying value of the goodwill in these CGUs.

15. Receivables and other assets

Table 15

Receivables and other assets

in USD millions, as of December 31	2022	2021
Financial assets		
Group derivative assets	766	938
Unit-linked derivative assets	69	12
Receivables from policyholders	3,534	3,364
Receivables from insurance companies, agents and intermediaries	6,566	5,950
Receivables arising from ceded reinsurance	1,891	1,633
Reverse repurchase agreements	649	_
Amounts due from investment brokers ¹	1,195	1,128
Other receivables	2,284	2,053
Allowance for impairments ²	(314)	(300)
Accrued premiums	1,186	1,054
Accrued investment income ³	1,108	1,398
Assets for defined benefit plans ⁴	415	603
Other financial assets	245	190
Non-financial assets		
Current income tax receivables	1,008	974
Prepaid expenses	791	554
Other non-financial assets	374	400
Total receivables and other assets	21,768	19,951

¹ Includes USD 0 million and USD 22 million of cash variation margin payments related to derivatives which are centrally cleared as of December 31, 2022 and 2021,

Receivables are carried at notional amounts and are generally settled within one year. The notional and fair value amounts are not significantly different.

respectively (see note 7).

Includes receivables arising from ceded reinsurance of USD 78 million and USD 78 million as of December 31, 2022 and 2021, respectively.

Accrued investment income on the unit-linked investments amounts to USD 93 million and USD 82 million as of December 31, 2022 and 2021, respectively.

See note 20.

16. Other liabilities

Table 16.1

Other liabilities

in USD millions, as of December 31	2022	2021
Other financial liabilities		
Group derivative liabilities	1,167	532
Unit-linked derivative liabilities	28	21
Amounts due to agents & intermediaries	992	789
Liabilities for cash collateral received for securities lending	_	_
Amounts due to investment brokers ¹	980	1,145
Bank deposits ²	1,356	1
Collateralized bank financing for structured lease vehicles	44	124
Liabilities for defined benefit plans ³	1,203	1,759
Other liabilities for employee benefit plans	121	142
Lease liabilities	1,701	1,878
Accrued liabilities	2,625	2,527
Other financial liabilities	6,049	5,445
Other non-financial liabilities		
Current income tax payables	721	622
Provisions ⁴	755	748
Other non-financial liabilities	273	277
Total other liabilities	18,017	16,009

¹ Includes USD 48.1 million and USD 0.6 million of fair value of centrally cleared derivatives net of corresponding cash variation margin as of December 31, 2022 and 2021,

Table 16.2 shows the maturity schedule of other financial liabilities excluding liabilities for defined benefit plans and lease liabilities as of December 31, 2022 and 2021. The allocation to the time bands is based on the expected maturity date for the carrying value and the earliest contractual maturity for the undiscounted cash flows.

Table 16.2

Maturity schedule other financial liabilities

in USD millions, as of December 31		2022		2021
	Carrying	Undiscounted	Carrying	Undiscounted
	value	cash flows	value	cash flows
<1 year	13,027	13,031	10,430	10,438
1 to 2 years	44	45	50	52
2 to 3 years	131	162	16	19
3 to 4 years	13	13	82	100
4 to 5 years	5	5	38	39
> 5 years	144	275	110	238
Total	13,363	13,530	10,727	10,886

Table 16.3

Maturity schedule lease liabilities

in USD millions, as of December 31		2022		2021
	Carrying	Undiscounted	Carrying	Undiscounted
	value	cash flows	value	cash flows
< 1 year	192	227	225	263
1 to 2 years	173	206	193	228
2 to 3 years	165	194	163	194
3 to 4 years	144	170	157	185
4 to 5 years	119	142	133	158
> 5 years	908	1,115	1,006	1,288
Total	1,701	2,054	1,878	2,316

respectively (see note 7).
Increased to USD 1.4 billion as a result of the acquisition of Deutsche Bank Italian Financial Advisors network (see note 5).
See note 20.

² Increased to USD 1.4 billion as a result of the acquisition of Deutsche Bank Italian Financial Advisors network (see note 5).
3 See note 20.
4 Include restructuring provisions, litigation and regulatory provisions and other provisions (see table 16.4 for further details).

Table 16.4

Provisions

in USD millions	Res	structuring	ng Litigation and		Other			
_		provisions	regulato	ry provisions1		provisions		Total
	2022	2021	2022	2021	2022	2021	2022	2021
As of January 1	93	167	150	142	504	584	748	893
Provisions made during								
the period	67	50	100	16	273	334	440	401
Increase of provisions set up								
in prior years	10	12	14	4	8	9	32	25
Provisions used during								
the period	(45)	(118)	(50)	(52)	(311)	(257)	(407)	(427)
Provisions reversed during								
the period	(6)	(13)	(9)	(8)	(58)	(54)	(73)	(75)
Foreign currency								
translation effects	(4)	(4)	(4)	12	(13)	(56)	(21)	(47)
Net changes due to								
acquisitions/divestments	-	_	(3)	_	40	(32)	37	(32)
Other changes	-	(1)	_	35	_	(23)	(1)	11
As of December 31	115	93	198	150	443	504	755	748

¹ See note 22 for further information on legal, compliance and regulatory developments.

17. Income taxes

Table 17.1

Income tax expense – current/deferred split

in USD millions, for the years ended December 31	2022	2021
Current	1,474	1,250
Deferred	(434)	646
Total income tax expense/(benefit)	1,040	1,895

Table 172

Expected and actual income tax expense

Rate	2022	Rate	2021
	5,962		7,321
	239		(275)
	6,201		7,046
20.0%	1,240	20.0%	1,409
	123		(102)
	(211)		(150)
	146		139
	104		64
	(123)		260
20.6%	1,279	23.0%	1,621
	(239)		275
17.4%	1,040	25.9%	1,895
	20.0%	5,962 239 6,201 20.0% 1,240 123 (211) 146 104 (123) 20.6% 1,279 (239)	5,962 239 6,201 20.0% 1,240 20.0% 123 (211) 146 104 (123) 20.6% 1,279 23.0% (239)

Table 17.2 sets out the factors that cause the actual income tax expense to differ from the expected expense computed by applying the Swiss statutory tax rate of 20.0 percent, which is the rate applicable in the jurisdiction where the ultimate parent company is resident.

The UK tax reform had an adverse impact on the Group's shareholder income tax position in 2021, which is included in the line 'Prior year adjustments and other'.

The Group is required to record taxes on policyholder earnings for life insurance policyholders in certain jurisdictions. Accordingly, the income tax expense or benefit attributable to these life insurance policyholder earnings is included in income tax expense. In certain jurisdictions an accrual for future policy fees that will cover the tax charge is included in insurance benefits and losses.

Taxes paid by certain of the Group's life insurance businesses are based on the investment result, and it is normal practice for certain of the Group's businesses to recover from policyholders the taxes attributable to their share of the investment result. While the relevant insurance businesses have the contractual right to charge policyholders for the taxes attributable to their share of the investment result, the obligation to pay the tax authority rests with the company and therefore the full amount of tax including the portion attributable to policyholders is accounted for as income tax. Income tax expense, therefore, includes an element attributable to policyholders.

Table 173

Deferred tax assets/(liabilities) analysis by source

in USD millions, as of December 31		2022		2021
	Assets	Liabilities	Assets	Liabilities
Gross deferred tax				
Deferred acquisition and origination costs	88	(976)	89	(578)
Depreciable and amortizable assets	288	(188)	209	(150)
Life policyholders' benefits and deposits ¹	249	(43)	237	(5)
Unrealized (gains)/losses on available-for-sale investments				
and cash flow hedges	882	(94)	44	(82)
Accruals and deferred income	148	(8)	50	(12)
Reserves for losses and loss adjustment expenses	409	(59)	157	(38)
Reserves for unearned premiums	892	(2)	622	(2)
Deferred front-end fees	83	_	3	_
Pensions and other employee benefits	503	(277)	427	(77)
Other assets/liabilities	482	(278)	331	(81)
Tax loss carryforwards	557	_	432	_
Gross deferred tax assets/(liabilities)				
before valuation allowance	4,580	(1,925)	2,601	(1,025)
Valuation allowance	(477)	_	(379)	_
Gross deferred tax assets/(liabilities)				
after valuation allowance	4,104	(1,925)	2,223	(1,025)
Deferred tax assets	2,179		1,198	, , ,
Gross deferred tax				
Deferred acquisition and origination costs	47	(2,140)	63	(2,762)
Depreciable and amortizable assets	792	(2,394)	766	(2,442)
Life policyholders' benefits and deposits ¹	1,303	(1,257)	1,538	(1,296)
Unrealized (gains)/losses on available-for-sale investments				
and cash flow hedges	1,386	(579)	283	(1,249)
Accruals and deferred income	98	(75)	189	(78)
Reserves for losses and loss adjustment expenses	272	(712)	401	(741)
Reserves for unearned premiums	135	(87)	290	(114)
Deferred front-end fees	516	_	649	_
Pensions and other employee benefits	412	(385)	415	(422)
Other assets/liabilities	720	(1,176)	661	(1,427)
Tax loss carryforwards	450	_	450	_
Gross deferred tax assets/(liabilities)				
before valuation allowance	6,133	(8,804)	5,705	(10,531)
Valuation allowance	(217)	_	(325)	_
Gross deferred tax assets/(liabilities)				
after valuation allowance	5,915	(8,804)	5,380	(10,531)
Deferred tax liabilities		(2,889)		(5,151)
Net deferred tax liabilities		(710)		(3,953)

¹ Includes reserves for unit-linked contracts.

The Group's deferred tax assets and liabilities are recorded by its tax-paying entities throughout the world, which may include several legal entities within each tax jurisdiction. Legal entities are grouped as a single taxpayer only when permitted by local legislation and when deemed appropriate. The first column of table 17.3 includes single taxpayers with a net deferred tax asset position and the second column includes single taxpayers with a net deferred tax liability position.

As of December 31, 2022 and 2021, the aggregate amount of temporary differences associated with investments in subsidiaries, branches and associates and interests in joint ventures, for which deferred tax liabilities have not been recognized, amount to approximately USD 15 billion and USD 26 billion, respectively. In the remote likelihood that these temporary differences were to reverse simultaneously, the resulting tax liabilities would be very limited due to participation exemption rules.

Table 17.4

Development of net deferred tax liabilities

1000 17.1		
in USD millions	2022	2021
As of January 1	(3,953)	(3,822)
Net change recognized in the income statement	434	(646)
Net change recognized in equity	2,497	423
Net changes due to acquisitions/(divestments)	5	(99)
Foreign currency translation effects	308	190
As of December 31	(710)	(3,953)
attributable to policyholders	(289)	(756)
attributable to shareholders	(421)	(3,197)

The net deferred tax liabilities related to non-controlling interests amounted to USD 77 million and USD 118 million as of December 31, 2022 and 2021, respectively.

Table 17.5

Development of deferred income taxes included in equity

	in USD millions	2022	2021
S	As of January 1	(137)	(585)
~	Net unrealized (gains)/losses on available-for-sale investments	2,478	451
	Cash flow hedges	61	22
	Revaluation reserve	(2)	(15)
	Net actuarial (gains)/losses on pension plans	(39)	(34)
	Foreign currency translation effects	(1)	25
	As of December 31	2,359	(137)

Table 17.6

Tax loss carryforwards and tax credits

1000 17.0		
in USD millions, as of December 31	2022	2021
For which deferred tax assets have been recognized, expiring		
< 5 years	11	7
5 to 20 years	85	75
> 20 years or with no time limitation	1,890	721
Subtotal	1,986	803
For which deferred tax assets have not been recognized, expiring		
< 5 years	157	181
5 to 20 years	337	225
> 20 years or with no time limitation	1,911	2,245
Subtotal	2,405	2,651
Total	4,391	3,454

The average tax rates applicable to tax losses for which a deferred tax asset has not been recognized are 24.0 percent and 25.0 percent as of December 31, 2022 and 2021, respectively.

In addition, for deductible temporary differences of USD 386m and USD 152m as of December 31, 2022 and 2021, respectively, deferred tax assets have not been recognized.

The recoverability of the deferred tax asset for each taxpayer is based on the taxpayer's ability to utilize the deferred tax asset. This analysis considers the projected taxable income to be generated by the taxpayer, as well as its ability to offset the deferred tax asset against deferred tax liabilities.

Management assesses the recoverability of the deferred tax asset carrying values based on future years' taxable income projections and believes the carrying values of the deferred tax assets as of December 31, 2022, to be recoverable.

18. Senior and subordinated debt

Senior and subordinated debt

in USD millions, as of December 31		2022	2021
Senior debt			
Zurich Insurance Company Ltd	3.375% EUR 500 million notes, due June 2022 ^{1,2}	_	572
	1.875% CHF 100 million notes, due September 20231	110	114
	1.750% EUR 500 million notes, due September 2024 ^{1,2}	540	579
	0.500% CHF 350 million notes, due December 20241	379	384
	0.510% CHF 120 million loan, due December 2024	_	132
	1.500% CHF 150 million notes, due July 2026 ¹	173	179
	0.750% CHF 200 million notes, due October 2027 ¹	216	219
	1.000% CHF 200 million notes, due October 2028 ¹	217	220
	1.500% EUR 500 million notes, due December 2028 ^{1,2}	531	565
	1.125% CHF 400 million notes, due July 2029 ¹	433	_
	0.000% CHF 200 million notes, due August 2031 ¹	216	219
	0.100% CHF 250 million notes, due August 2032 ¹	271	275
Zurich Holding Comp. of America Inc	2.300% USD 400 million notes, due February 2030¹	400	400
Zurich Finance (Australia) Limited	3.477% AUD 350 million notes, due May 2023 ¹	238	254
Zanorri manoc (lastrana) Emited	4.770% AUD 200 million loan, due July 2027	136	145
	5.324% AUD 200 million notes, due September 2029 ¹	136	
	4.500% AUD 375 million notes, due July 2038 ¹	268	288
Zurich Finance (Ireland) DAC	2.250% USD 200 million notes, due December 2031 ^{1,2}	200	200
Zulich Filiance (lieland) DAC	1.625% EUR 500 million notes, due June 2039 ^{1,2}	533	567
	Euro Commercial Paper Notes, due in less than 12 months	75	
Other	Various debt instruments	75	
Senior debt	various debt instruments	5.071	5,327
Subordinated debt		5,071	5,327
	4.7500.1100.1 - -		
Zurich Insurance Company Ltd	4.750% USD 1 billion perpetual capital notes, first callable		1 000
	January 2022 ^{1,2}	_	1,000
	4.250% EUR 500 million notes, due October 2043,	FO.4	4.405
	first callable October 2023 ^{1,2}	534	1,135
	4.250% USD 300 million notes, due October 2045,	000	
	first callable October 2025 ^{1,2}	300	299
	5.625% USD 1 billion notes, due June 2046,		
	first callable June 2026 ^{1,2}	998	998
	3.500% EUR 750 million notes, due October 2046,		
	first callable October 2026 ^{1,2,3}	770	861
	5.125% USD 500 million notes, due June 2048,		
	first callable June 2028 ^{1,2}	499	499
	4.875% USD 500 million notes, due October 2048,		
	first callable October 2028 ^{1,2}	499	498
	2.750% EUR 500 million notes, due February 2049,		
	first callable February 2029 ^{1,2}	530	564
	1.500% CHF 300 million notes, due May 2052,		
	first callable February 2032 ¹	323	_
Zurich Finance (Ireland) DAC	1.875% EUR 750 million notes, due September 2050,		
	first callable June 2030 ^{1,2}	797	848
	3.000% USD 1.75 billion notes, due April 2051,		
	first callable January 2031 ^{1,2}	1,746	1,746
	3.500% USD 500 million notes, due May 2052,		
	first callable February 2032 ^{1,2}	499	499
	5.125% GBP 1 billion notes, due November 2052,		
	first callable August 2032 ^{1,2}	1,192	_
	1.600% EUR 200 million notes, due December 2052,	_,_ J_	
	first callable September 2032 ^{1,2}	213	227
Zurich Finance (UK) plc	6.625% GBP 450 million perpetual notes,		
24.16.11 IIIdi 100 (01) pio	first callable October 2022 ¹	_	608
Subordinated debt	III ST CAIRADIE OCTODEI ZOZZ	8,899	9,782
		0000	3.702

Issued under the Group's Euro Medium Term Note Programme (EMTN Programme).
 These bonds are part of a qualifying net investment hedge to hedge the foreign currency exposure.
 The Group has discontinued the fair value hedges previously applied to hedge the interest rate exposure.

None of the debt instruments listed in table 18.1 were in default as of December 31, 2022 or December 31, 2021.

To facilitate the issuance of debt, the Group has in place a Euro Medium Term Note Program (EMTN Program) allowing for the issuance of senior and subordinated notes up to a maximum of USD 18 billion. All issuances under this program are either issued or guaranteed by Zurich Insurance Company Ltd. The Group has also issued debt outside this program.

Debt issued is recognized initially at fair value of the consideration received, net of transaction costs incurred, and subsequently carried at amortized cost using the effective interest rate method, unless fair value hedge accounting is applied.

Table 18.2

Maturity schedule of outstanding debt

in USD millions, as of December 31		2022		2021
	Carrying	Undiscounted	Carrying	Undiscounted
	value	cash flows	value	cash flows
<1 year	956	1,957	2,195	2,646
1 to 2 years	919	1,308	1,649	2,021
2 to 3 years	300	684	1,095	1,401
3 to 4 years	1,942	2,306	299	604
4 to 5 years	352	636	2,038	2,281
5 to 10 years	8,700	9,645	5,977	6,760
> 10 years	801	916	1,856	2,018
Total	13,970	17,453	15,109	17,731

Debt maturities reflect original contractual dates, taking early redemption options into account. For call/redemption dates, see table 18.1. The total notional amount of debt due in each period is not materially different from the total carrying value disclosed in table 18.2. Undiscounted cash flows include interest and principal cash flows on debt outstanding as of December 31, 2022 and 2021. Floating interest rates are assumed to remain constant as of December 31, 2022 and 2021. The aggregated cash flows are translated into U.S. dollars at end-of-period rates.

Table 18.3

Development of debt arising from financing activities

	Total
2022	2021
15,109	13,777
2,551	2,664
(3,067)	(740)
(39)	(12)
(6)	(14)
(577)	(565)
13,970	15,109
	15,109 2,551 (3,067) (39) (6) (577)

19. Shareholders' equity, dividends and earnings per share

Table 19.1

Share capital

Share capital	Number	Par value
in CHF	of shares	in CHF
15,046,017	150,460,167	0.10
_	_	
15,046,017	150,460,167	0.10
_	_	
15,046,017	150,460,167	0.10
22,935,926	229,359,259	0.10
22,935,926	229,359,259	0.10
	15,046,017 - 15,046,017 - 15,046,017 22,935,926	in CHF of shares 15,046,017 150,460,167

The following information related to authorized share capital and contingent share capital is specified in articles 5^{bis} and 5^{ter} of the Articles of Association of Zurich Insurance Group Ltd (ZIG).

a) Authorized share capital

On April 6, 2022, the Annual General Meeting (AGM) of ZIG approved an extension of the authorized share capital for another two years (from April 6, 2022 to April 6, 2024). The extension of the authorized share capital required the corresponding extension of the validity of the combined dilution limitations for the authorized and contingent share capital (Art. 5^{bis} 5 and 5^{ter} 1d of the Articles of Association).

The Board of ZIG is authorized to increase the share capital of ZIG by an amount not exceeding CHF 4,488,240 by issuing up to 44,882,400 fully paid registered shares with a nominal value of CHF 0.10 each until April 6, 2024. An increase in partial amounts is permitted. The Board would determine the date of issue of any such new shares, the issue price, type of payment, conditions for exercising subscription rights, and the commencement of entitlement to dividends.

The Board may issue such new shares by means of a firm underwriting by a banking institution or syndicate with a subsequent offer of those shares to current shareholders. The Board may allow the expiry of subscription rights which have not been exercised, or it may place these rights as well as shares, the subscription rights of which have not been exercised, at market conditions.

The Board is further authorized to restrict or exclude the subscription rights of shareholders and to allocate them to third parties, ZIG or one of its Group companies, up to a maximum of 14,960,800 shares, if the shares are to be used:

- for the take-over of an enterprise, of parts of an enterprise or of participations or for investments by ZIG or one of its
 Group companies, or the financing including re-financing of such transactions; or
- for the purpose of expanding the scope of shareholders in connection with the quotation of shares on foreign stock exchanges or issuance of shares on the national or international capital markets (including private placements to one or more selected investors); or
- for the conversion of loans, bonds, similar debt instruments, equity-linked instruments or other financial market instruments (collectively, the 'Financial Instruments') issued by ZIG or one of its Group companies; or
- for the improvement of the regulatory and/or the rating capital position of ZIG or one of its Group companies in a fast and expeditious manner.

Up to April 6, 2024, the total of new shares issued from (i) authorized share capital where the subscription rights were restricted or excluded, and (ii) contingent share capital in connection with Financial Instruments where the advance subscription rights were restricted or excluded, may not exceed 14,960,800 new shares.

b) Contingent share capital

Financial Instruments

The extension of the authorized share capital until April 6, 2024 (see a) above) required the corresponding extension of the validity of the combined dilution limitations for authorized and contingent share capital until April 6, 2024, which was resolved at the AGM of April 6, 2022, by the shareholders (see also below). No other changes were resolved with respect to the contingent share capital.

The share capital of ZIG may be increased by an amount not exceeding CHF 2,992,160 by issuing of up to 29,921,600 fully paid registered shares with a nominal value of CHF 0.10 each by the voluntary or mandatory exercise of conversion and/or option rights which are granted in connection with the issuance of Financial Instruments by ZIG or one of its Group companies or by mandatory conversion of Financial Instruments issued by ZIG or one of its Group companies, that allow for contingent mandatory conversion into shares of ZIG, or by exercising option rights which are granted to the shareholders. The subscription rights are excluded. The then-current owners of the Financial Instruments shall be entitled to subscribe for the new shares. The conversion and/or option conditions are to be determined by the Board.

The Board is authorized, when issuing Financial Instruments to restrict or exclude the advance subscription rights in cases where they are issued:

- for the financing including re-financing of a take-over of an enterprise, of parts of an enterprise, or of participations or of investments by ZIG or one of its Group companies; or
- on national or international capital markets (including private placements to one or more selected investors); or
- for the improvement of the regulatory and/or the rating capital position of ZIG or one of its Group companies in a fast and expeditious manner.

If the advance subscription rights are restricted or excluded by a resolution of the Board, the following applies: the Financial Instruments are to be issued at prevailing market conditions (including standard dilution protection clauses in accordance with market practice) and the setting of the conversion or issue price of the new shares must take due account of the stock market price of the shares and/or comparable instruments priced by the market at the time of issue or time of conversion.

The conversion rights may be exercisable during a maximum of ten years and option rights during a maximum of seven years from the time of the respective issue; contingent conversion features may remain in place indefinitely.

Up to April 6, 2024, the total of new shares issued from (i) authorized share capital where the subscription rights were restricted or excluded, and (ii) contingent share capital in connection with Financial Instruments where the advance subscription rights were restricted or excluded, may not exceed 14,960,800 new shares.

Employee participation

During 2022 and 2021, no shares were issued to Group employees out of the contingent share capital. As of December 31, 2022, and as of December 31, 2021, the remaining contingent share capital available for issuance to Group employees amounted to CHF 409,509.20 and 4,095,092 fully paid registered shares with a nominal value of CHF 0.10 each, respectively. Subscription rights, as well as advance subscription rights of the shareholders are excluded. The issuance of new shares or respective option rights to employees is subject to one or more regulations to be issued by the Board and taking into account performance, functions, levels of responsibility and criteria of profitability. New shares or option rights may be issued to employees at a price lower than that quoted on the stock exchange.

c) Additional paid-in capital

This reserve is not ordinarily available for distribution. However, as of January 1, 2011, a Swiss tax regulation based on the Swiss Corporate Tax Reform II became effective, allowing for payments free of Swiss withholding tax to shareholders out of the capital contribution reserve, created out of additional paid-in capital. As of December 31, 2022, the general capital contribution reserve amounted to CHF 6 million.

d) Treasury shares

Table 19.2

Treasury shares

number of shares, as of December 31	2022	2021	2020
Treasury shares	2,097,833	2,169,197	1,964,106
Treasury shares (repurchased under the public share buyback program, see f)	829,830	_	_
Total treasury shares	2,927,663	2,169,197	1,964,106

Treasury shares comprise shares acquired in the market as well as shares repurchased via the public share buyback program for cancellation purposes (see f) below).

e) Dividends

The dividend of CHF 22 per share was paid out of the available earnings (CHF 20.35) and the capital contribution reserve (CHF 1.65) on April 12, 2022, as approved at the AGM on April 6, 2022. The difference between the respective amounts of the dividend at transaction day exchange rates amounting to USD 3.5 billion and at historical exchange rates are reflected in the cumulative foreign currency translation adjustment.

The dividend of CHF 20 per share was paid out of the available earnings on April 13, 2021, as approved at the AGM on April 7, 2021. The difference between the respective amounts of the dividend at transaction day exchange rates amounting to USD 3.2 billion and at historical exchange rates are reflected in the cumulative foreign currency translation adjustment.

f) Share buyback program

On August 11, 2022, the Group announced a public share buyback program to offset expected earnings dilution from the agreed German life back book transaction. On November 21, 2022, ZIG launched the public share buyback program of up to CHF 1,800 million. As per December 31, 2022, ZIG repurchased on a second trading line on the SIX Swiss Exchange 829,830 ZIG shares, having a repurchase value of CHF 373 million. The program lasts until December 29, 2023, at the latest. Following completion of the public share buyback program, the repurchased shares shall be cancelled.

g) Earnings per share

Table 19.3

Earnings per share

for the years ended December 31	Net income			
	attributable	Weighted		
	to common	average		
	shareholders	number of	Per share	Per share
	(in USD millions)	shares	(USD)	(CHF) ¹
2022				
Basic earnings per share	4,603	148,442,709	31.01	29.59
Effect of potentially dilutive shares related to				
share-based compensation plans		1,135,620	(0.24)	(0.22)
Diluted earnings per share	4,603	149,578,329	30.77	29.36
2021				
Basic earnings per share	5,202	148,685,004	34.99	31.98
Effect of potentially dilutive shares related to				
share-based compensation plans		1,385,619	(0.32)	(0.30)
Diluted earnings per share	5,202	150,070,623	34.66	31.68

¹ The translation from U.S. dollars to Swiss francs is shown for information purposes only and has been calculated at the Group's average exchange rates for the years ended December 31, 2022 and 2021, respectively.

Basic earnings per share is computed by dividing net income attributable to shareholders by the weighted average number of shares outstanding during the year, excluding the weighted average number of shares held as treasury shares. Diluted earnings per share reflects the effect of potentially dilutive shares.

20. Employee benefits

The Group operates a number of retirement benefit arrangements for employees. Historically, the majority of employees belonged to defined benefit pension plans and some will still have past service benefits accrued in those plans.

However, the majority of employees now accrue benefits under defined contribution plans, which provide benefits equal to the amounts contributed by both the employer and the employee plus investment returns.

Certain of the Group's operating companies also provide post-employment benefit plans covering medical care and life insurance, mainly in the U.S. Eligibility for these plans is generally based on completion of a specified period of eligible service and reaching a specified age. The plans typically pay a stated percentage of medical expenses subject to deductibles and other factors. The cost of post-employment benefits is accrued during the employees' service periods.

The Group Pensions Committee is responsible for developing, reviewing and advising on the Group governance framework in matters related to pension and post-employment benefit arrangements. It provides oversight and guidance in the areas of market, demographic and reputational risk. It reports to and makes recommendations to the Group Balance Sheet Committee on material pension-related matters and reports regularly to the Remuneration Committee. The Group Pensions Committee provides a point of focus and coordination on the topic of pensions and post-retirement benefits at Group level for the supervision and exercise of company powers and obligations in relation to pension and post-retirement benefit plans.

Funding and asset allocation is subject to local legal and regulatory requirements.

a) Defined contribution pension plans

Certain companies of the Group sponsor defined contribution pension plans. Eligibility for participation in such plans is either immediate on commencement of employment or based on completion of a specified period of continuous service. The plans provide for voluntary contributions by employees and contributions by the employer which typically range from 2 percent to 13 percent of annual pensionable salary, depending on a number of factors. The Group's contributions under these plans amounted to USD 301 million and USD 289 million for the years ended December 31, 2022 and 2021, respectively.

b) Defined benefit pension plans

The largest defined benefit obligations are in the pension plans in Switzerland, the UK, the U.S. and Germany, which together comprise over 90 percent of the Group's total defined benefit obligation. The remaining plans in other countries are not individually significant; therefore, no separate disclosure is provided.

Certain Group companies provide defined benefit pension plans, some of which provide benefits on retirement, death or disability related to employees' service periods and pensionable earnings. Others provide cash balance plans where the participants receive the benefit of the accumulated employer and employee contributions (where paid) together with additional cash credits in line with the rules of the plan.

Most of the Group's defined benefit pension plans are funded through contributions by the Group and, in some cases also by employees, to investment vehicles managed by trusts or foundations independent of the Group's finances, or by management committees with fiduciary responsibilities. Where a trust or foundation exists, it is required by law or by articles of association to act in the interests of the fund and of all relevant beneficiaries to the plan, which can also include the sponsoring company, and is responsible for the investment policy with regard to the assets of the fund. The trust/foundation board or committee is usually composed of representatives from both employers and plan members. Independent actuarial valuations for the plans are performed as required. It is the Group's general principle that plans are appropriately funded in accordance with local pension regulations in each country.

The pension plans typically expose the company to risks such as interest rate, price inflation, longevity and salary increases. To the extent that pension plans are funded, the assets held mitigate some of the liability risk but introduce some investment risk.

The overall investment policy and strategy for the Group's defined benefit pension plans is to achieve an investment return which, together with contributions, targets having sufficient assets to pay pension benefits as they fall due while also mitigating the various risks in the plans. The actual asset allocation is determined by reference to current and expected economic and market conditions and in consideration of specific asset class risk in the risk profile. The Group has a governance framework to ensure the trust/foundation board or committee considers how the asset investment strategy correlates with the maturity profile of the plan liabilities and the potential impact on the funding status of the plans, including short-term liquidity requirements. The investment strategies for each pension plan are independently determined by the governance body in each country, with oversight by the Group Pensions Committee. The pension assets are invested in diversified portfolios across geographical regions and asset classes to ensure diversified returns, also taking into account local pension laws. The investment strategies aim to mitigate asset-liability mismatches in the long run. In recent years, the integration of environmental, social and governance (ESG) factors has become a significant element of Zurich's pension plans' investment decision making. Pension plans will continue progressing on their responsible investment journey, leveraging Zurich's expertise and leadership while being cognizant of their fiduciary responsibility.

For post-employment defined benefit plans, total contributions to funded plans and benefits paid directly by the Group were USD 289 million for 2022 compared with USD 331 million for 2021. The estimated total for 2023 is USD 320 million (actual amount may differ).

Swiss pension plan

The main plan provides benefits that exceed the minimum benefit requirements under Swiss pension law. It provides a lifetime pension to members based on their accrued retirement savings in the basic and additional accounts multiplied by the applicable conversion rate at the normal retirement age of 65 (age 62 for Executive Staff). Participants can draw retirement benefits early from age 60 (age 58 for Executive Staff). Alternatively, the benefit can be taken as a lump sum payment at retirement. In addition, at retirement, the plan pays a one-off cash sum settlement equal to the accrued retirement savings in the capital account. Contributions to the plan are paid by the employees and the employer, both for retirement savings and to finance risk benefits paid out in the event of death and disability. The accumulated balance on the pension account is based on the employee and employer pension contributions and interest accrued. The interest rate credited is defined annually by the plan's Board of Trustees which is responsible for the governance of the plan. The trustees review the Pension Plan's funding status regularly as well as the technical interest rate and the conversion rates. The conversion rate at age 65 is currently being phased down to 5 percent until 2023. In 2018, both the employer and employee savings contributions were increased. The insured salary was increased by reducing the coordination deduction. The flexibility of the plan was improved by introducing three levels of savings. Top-up payments from the company were introduced to those members' pension accounts which had been part of the plan in 2017 and were affected by the changes. For them, this ensures that expected benefits at normal retirement age will be at least equal to 98.5 percent of their pensions expectations under the previous conversion rates. The top-up payments will be made until 2023.

Although the Swiss plan operates like a defined contribution plan under local regulations, it is accounted for as a defined benefit pension plan under IAS 19 'Employee Benefits' because of the need to accrue a minimum level of interest on the mandatory part of the pension accounts and the payment of a lifetime pension at a fixed conversion rate under the plan rules.

Actuarial valuations are completed annually and if the plan becomes underfunded under local regulations, options for dealing with this include the Group paying additional contributions into the plan and/or reducing future benefits. At present, the plan is sufficiently funded, meaning that no additional contributions into the plans are expected to be required in the next year. The investment strategy of the Swiss plan is constrained by Swiss pension law including regulations related to diversification of plan assets. Under IAS 19, volatility arises in the Swiss pension plan net asset because the fair value of the plan assets is not directly correlated to movements in the value of the plan's defined benefit obligation in the short-term.

If the fair value of plan assets exceeds the plan's defined benefit obligation, a surplus is only recognized on the balance sheet to the extent that it does not exceed the estimated future economic benefit. The value of the future economic benefit is estimated as the sum of two items: the difference between the present value of the estimated future net service cost and the present value of estimated future employer contributions, plus employer contribution reserves in accordance with local Swiss regulations.

UK pension plan

The major UK pension plan is a hybrid arrangement and defined benefits entitlements accrued to December 31, 2015, increase in line with salary increases. Normal retirement age for the plan is 60. The plan is split into distinct defined benefit sections which are closed to new entrants and, with effect from January 1, 2016, to future benefit accrual. All employees now participate in a defined contribution section within the same trust. The notes that follow consider only the defined benefit sections. The UK Pension Trustee Board is responsible for the governance of the plan. The employer contributions are determined based on regular triennial actuarial valuations which are conducted using assumptions agreed by the Trustee Board and the sponsoring company. A local statutory valuation was carried out at an effective date of June 30, 2019, and was finalized in September 2020. This valuation disclosed a funding surplus of USD 86 million (GBP 63 million) after taking into account the value of the asset-backed funding arrangement established in 2014. The statutory valuation as of June 30, 2022, is underway and expected to be finalized by September 2023. The asset-backed funding arrangement does not qualify as a plan asset under IAS19 and is therefore not included in the tables set out in the rest of this note.

The ongoing funding of the plan is closely monitored by the Trustee Board and a dedicated funding committee is made up of representatives from the Trustee Board and the Group. The plan rules and UK pension legislation set out maximum levels of inflationary increases applied to plan benefits. The plan assets are invested in diversified classes of assets.

U.S. pension plans

There are two major pension plans in the U.S., the Zurich North America (ZNA) pension plan and the Farmers Group, Inc. (FGI) pension plan. Both plans are funded entirely by the participating employers. The ZNA plan is a cash balance and the FGI pension plan utilizes a cash balance pension formula for benefits accruing after January 1, 2009, except with respect to certain grandfathered participants who retained a final average pay formula. Under a cash balance pension formula, an amount is credited to the cash balance account each quarter, determined by an employee's age, service and their level of earnings up to and above the social security taxable wage base. The minimum annual interest credited on the account balance is 5 percent. The cash balance account is available from age 65, or age 55 with five years of service. The benefit can be taken as a monthly annuity or as a lump sum. Both the ZNA plan and the FGI pension plan have fiduciaries as required under local pension laws. The fiduciaries are responsible for the governance of the plans. Actuarial valuations are completed regularly. The annual employer minimum required contributions are equal to expected expenses paid from the plan each year, plus a rolling amortization of any prior underfunding.

The ZNA and FGI plans have been frozen with effect from December 31, 2018. ZNA and FGI employees with a cash balance account will continue to earn interest credits on their existing cash balance account balance after the freeze date and will continue to earn eligibility service used to determine vesting and early retirement eligibility. FGI employees participating in the final average pay formula will continue to earn eligibility service used to determine vesting and the percentage of pension benefit payable for early retirement before normal retirement age of 65. ZNA and FGI employees earn only defined contribution retirement benefits with effect from January 1, 2019. In conjunction with the change in the pension plan, ZNA and FGI employees receive an additional company contribution within their defined contribution plan.

German pension plans

There are a number of legacy defined benefit plans in Germany, most of which were set up under works council agreements. Contributions to support the pension commitments are made to a contractual trust arrangement. A separate arrangement was also established in 2010 to provide for retirement obligations that were in payment at that time. Consideration is given from time to time based on the fiscal efficiency of adding recent retirees to this arrangement and to adding assets to the contractual trust. In 2022 the pension liabilities are nearly fully funded; therefore, no additional funding was required.

The defined benefit plans provide benefits on either a final salary, career average salary or a cash balance basis. New entrants participate in a cash balance arrangement, which has the characteristics of a defined contribution arrangement, with a lump sum paid at retirement and a capital guarantee on members' balances, which mirrors the capital guarantee given in a conventional life insurance arrangement in Germany.

Tables 20.1a and 20.1b set out the reconciliation of the defined benefit obligation and plan assets for the Group's post-employment defined benefit plans.

Movement in defined benefit obligation and fair value of assets current period

Table 20.1a				
in USD millions	Defined			Net defined
I	benefit	Fair value of		benefit asset/
	obligation	assets	Asset ceiling	(liability)
As of January 1, 2022	(24,218)	24,005	(942)	(1,155)
Net post-employment benefit (expense)/income:				
Current service cost	(157)	_		(157)
Interest (expense)/income	(304)	286	_	(18)
Settlements gains/(losses)	(1)	_	_	(1)
Past service (cost)/credit	(1)	_	_	(1)
Net post-employment benefit (expense)/income	(462)	286	_	(177)
Remeasurement effects included in				
other comprehensive income:				
Return on plan assets excluding interest income	_	(5,764)	_	(5,764)
Experience gains/(losses)	(897)	_	_	(897)
Actuarial gains/(losses) arising from changes in				
demographic assumptions	(31)	_	_	(31)
Actuarial gains/(losses) arising from changes in				
financial assumptions	7,156	_	_	7,156
Change in asset ceiling	_	_	(298)	(298)
Remeasurement effects included in				
other comprehensive income	6,228	(5,764)	(298)	166
Employer contributions	_	251	_	251
Employer contributions paid to meet benefits directly	38	_	_	38
Plan participants' contributions	(76)	76	_	_
Payments from the plan (incl. settlements)	827	(827)	_	_
Acquisitions/(divestments) and transfers ¹	(1)	_	_	(1)
Foreign currency translation effects	1,539	(1,449)	_	90
As of December 31, 2022	(16,125)	16,578	(1,240)	(788)
of which: Assets for defined pension plans ²				415
of which: Liabilities for defined pension plans ³				(1,203)

Zurich Insurance Company Ltd acquired Deutsche Bank Italian Financial Advisors network (see note 5).
 Included within 'Receivables and other assets' (see note 15).
 Included within 'Other liabilities' (see note 16).

Table 20.1b

Movement in defined benefit obligation and fair value of assets prior period

Table 20.1b				
in USD millions	Defined			Net defined
I	benefit	Fair value of		benefit asset/
	obligation	assets	Asset ceiling	(liability)
As of January 1, 2021	(25,939)	24,236	(467)	(2,170)
Net post-employment benefit (expense)/income:				
Current service cost	(178)	_	_	(178)
Interest (expense)/income	(222)	195		(27)
Settlements gains/(losses)	1		_	1
Past service (cost)/credit	(2)			(2)
Net post-employment benefit (expense)/income	(401)	195		(207)
Remeasurement effects included in				
other comprehensive income:				
Return on plan assets excluding interest income		658	_	658
Experience gains/(losses)	(499)	_		(499)
Actuarial gains/(losses) arising from changes in				
demographic assumptions	201	_	_	201
Actuarial gains/(losses) arising from changes in				
financial assumptions	1,012	_	_	1,012
Change in asset ceiling			(475)	(475)
Remeasurement effects included in				
other comprehensive income	714	658	(475)	896
Employer contributions		295	_	295
Employer contributions paid to meet benefits directly	36	_	_	36
Plan participants' contributions	(76)	76	_	
Payments from the plan (incl. settlements)	977	(977)	_	
Foreign currency translation effects	472	(478)	_	(6)
As of December 31, 2021	(24,218)	24,005	(942)	(1,155)
of which: Assets for defined pension plans ¹				603
of which: Liabilities for defined pension plans ²				(1,759)

¹ Included within 'Receivables and other assets' (see note 15).
2 Included within 'Other liabilities' (see note 16).

Net post-employment benefit (expense)/income is recognized in other employee benefits, which is included within administrative and other operating expense.

Post-employment benefits are long-term by nature. However, short-term variations between long-term actuarial assumptions and actual experience may be positive or negative, resulting in actuarial gains or losses, which are recognized in full in the period in which they occur and are included within other comprehensive income.

Table 20.2 provides a breakdown of plan assets by asset class.

Table 20.2

Fair value of assets held in funded defined benefit pension plans

			2022				2021
Quoted in				Quoted in			
active			% of	active			% of
markets	Other	Total	Total	markets	Other	Total	Total
426	_	426	3%	469	_	469	2%
3,662	242	3,904	24%	5,640	236	5,876	24%
_	11,559	11,559	70%	_	17,652	17,652	74%
_	1,841	1,841	11%	_	1,949	1,949	8%
_	359	359	2%	_	372	372	2%
_	(1,511)	(1,511)	(9%)	_	(2,314)	(2,314)	(10%)
4,088	12,490	16,578	100%	6,109	17,896	24,005	100%
	active markets 426 3,662 — — —	active markets Other 426 - 3,662 242 - 11,559 - 1,841 - 359 - (1,511)	active markets Other Total 426 - 426 3,662 242 3,904 - 11,559 11,559 - 1,841 1,841 - 359 359 - (1,511) (1,511)	Quoted in active markets % of Total % of Total Total Total 3% 3% 3,662 242 3,904 24% - - 11,559 11,559 70% - - 1,841 11% - - 359 359 2% - - (1,511) (1,511) (9%)	Quoted in active markets Other Date of the markets Total Total Total Total Markets Quoted in active markets 426 - 426 3% 469 3,662 242 3,904 24% 5,640 - 11,559 11,559 70% - - 1,841 1,841 11% - - 359 359 2% - - (1,511) (1,511) (9%) -	Quoted in active markets Other Total Total Total Quoted in active markets Other 426 - 426 3% 469 - 3,662 242 3,904 24% 5,640 236 - 11,559 11,559 70% - 17,652 - 1,841 1,841 11% - 1,949 - 359 359 2% - 372 - (1,511) (1,511) (9%) - (2,314)	Quoted in active markets Other Data Total Total Total Markets Quoted in active markets Other Data Total Marke

For the classification of pension assets, the Group follows the same principles as outlined in note 23 (Fair value measurement). Assets meeting the criteria of Level 1 are generally considered quoted in active markets, while assets meeting the criteria of Level 2 or Level 3 are generally considered in other assets.

Tables 20.3a and 20.3b provide a breakdown of the key information included in tables 20.1a and 20.1b for the main countries for the years ended December 31, 2022 and 2021, respectively.

Table 20.3a

Key information by main country – current period

	United	United			
vitzerland	Kingdom	States	Germany	Other	Total
(4,294)	(7,044)	(2,770)	(1,125)	(892)	(16,125)
5,576	6,606	2,597	947	853	16,578
(1,161)	(78)	_	_	(1)	(1,240)
121	(517)	(174)	(178)	(40)	(788)
125	_	191	24	75	415
(4)	(517)	(364)	(202)	(115)	(1,203)
(93)	(26)	(17)	(16)	(25)	(177)
	(4,294) 5,576 (1,161) 121 125 (4)	vitzerland Kingdom (4,294) (7,044) 5,576 6,606 (1,161) (78) 121 (517) (4) (517)	vitzerland Kingdom States (4,294) (7,044) (2,770) 5,576 6,606 2,597 (1,161) (78) - 121 (517) (174) 125 - 191 (4) (517) (364)	vitzerland Kingdom States Germany (4,294) (7,044) (2,770) (1,125) 5,576 6,606 2,597 947 (1,161) (78) - - 121 (517) (174) (178) 125 - 191 24 (4) (517) (364) (202)	witzerland Kingdom States Germany Other (4,294) (7,044) (2,770) (1,125) (892) 5,576 6,606 2,597 947 853 (1,161) (78) - - (1) 121 (517) (174) (178) (40) 125 - 191 24 75 (4) (517) (364) (202) (115)

Table 20.3b

Key information by main country – prior period

in USD millions, as of December 31, 2021		United	United			
	Switzerland	Kingdom	States	Germany	Other	Total
Defined benefit obligation	(5,394)	(12,308)	(3,666)	(1,504)	(1,345)	(24,218)
Fair value of plan assets	6,420	11,412	3,479	1,463	1,230	24,005
Impact of asset ceiling	(877)	(65)	_	_	_	(942)
Net defined benefit asset/(liability)	149	(962)	(187)	(41)	(115)	(1,155)
of which: Assets for defined pension plans	162	_	265	112	64	603
of which: Liabilities for defined pension plans	(13)	(962)	(452)	(153)	(179)	(1,759)
Net post-employment benefit (expense)/income	(106)	(36)	(18)	(19)	(27)	(207)

The Groups' post-employment defined benefit obligations and the Group's post-employment benefit expenses in the Group's major plans shown in table 20.3 are calculated by discounting using the full yield curve for each country. For the UK, where price inflation is required for projecting benefits in those calculations, this is done using the full breakeven price inflation curve. The figures for discount rates and for UK price inflation in table 20.4 are singleequivalent rates for the defined benefit obligations (i.e., the single assumption that would produce the same defined benefit obligation as using the full curve); single-equivalent rates for other elements of the accounting results will differ slightly from the figures set out below.

Table 20.4

Key financial assumptions used for major plans

			2022				2021
	United	United			United	United	
Switzerland	Kingdom	States	Germany	Switzerland	Kingdom	States	Germany
2.2%	4.8%	5.4%	3.7%	0.2%	1.8%	2.8%	1.1%
1.2%	2.6%	2.5%	2.6%	1.0%	2.2%	2.7%	2.2%
1.2%	2.8%	5.0%	3.9%	1.0%	2.8%	5.2%	3.5%
0.1%	3.4%	n/a	2.6%	0.1%	3.5%	n/a	2.2%
2.2%	n/a	5.4%	n/a	1.0%	n/a	5.0%	n/a
	2.2% 1.2% 1.2% 0.1%	Switzerland Kingdom 2.2% 4.8% 1.2% 2.6% 1.2% 2.8% 0.1% 3.4%	Switzerland Kingdom States 2.2% 4.8% 5.4% 1.2% 2.6% 2.5% 1.2% 2.8% 5.0% 0.1% 3.4% n/a	United Switzerland United Kingdom United States Germany 2.2% 4.8% 5.4% 3.7% 1.2% 2.6% 2.5% 2.6% 1.2% 2.8% 5.0% 3.9% 0.1% 3.4% n/a 2.6%	Switzerland United Kingdom United States Germany Switzerland 2.2% 4.8% 5.4% 3.7% 0.2% 1.2% 2.6% 2.5% 2.6% 1.0% 1.2% 2.8% 5.0% 3.9% 1.0% 0.1% 3.4% n/a 2.6% 0.1%	United Switzerland United Kingdom United States Germany Germany Switzerland Kingdom Kingdom 2.2% 4.8% 5.4% 3.7% 0.2% 1.8% 1.2% 2.6% 2.5% 2.6% 1.0% 2.2% 1.2% 2.8% 5.0% 3.9% 1.0% 2.8% 0.1% 3.4% n/a 2.6% 0.1% 3.5%	United Switzerland United Kingdom United States Germany Switzerland United Kingdom United States 2.2% 4.8% 5.4% 3.7% 0.2% 1.8% 2.8% 1.2% 2.6% 2.5% 2.6% 1.0% 2.2% 2.7% 1.2% 2.8% 5.0% 3.9% 1.0% 2.8% 5.2% 0.1% 3.4% n/a 2.6% 0.1% 3.5% n/a

¹ In the UK, part of the liability is linked to the inflation measure of the Retail Price Index (RPI), which is assumed to be 1.0 percent higher than the Consumer Price Index (CPI) as of both December 31, 2022 and 2021. As RPI is expected to converge with CPI no earlier than in 2030, the RPI assumption for the UK was assumed to be 1.0 percent higher than CPI for durations up to and including 2029 and the same as CPI for 2030 onwards.

2 As of December 31, 2022, the disclosed assumption for the U.S. is calculated as a weighted average of ZNA pension plans and the FGI pension plans.

Tables 20.5a and 20.5b set out the life expectancies used in the valuation of the Group's major plans. The mortality assumptions in each country have been based on mortality tables in accordance with typical practice in that country.

Table 20.5a

Mortality tables and life expectancies for major plans current period

in years, as of December 33	of December 31, 2022 Life expectancy at age 65				ncy at age 65
	_	for a r	nale currently	for a fer	nale currently
		aged 65	aged 45	aged 65	aged 45
Country	Mortality table for major plans				
	BVG 2020 with generational				
	projections according to CMI				
	model adapted to Swiss mortality				
Switzerland	with a long-term trend rate of 1.25%	21.84	23.50	23.59	25.18
	SAPS Series 3 with CMI_2021				
	projection with plan specific				
United Kingdom	adjustments	22.06	23.30	24.11	25.58
	Pri-2012 with MP-2020				
	Generational projection and				
	white collar adjustment	21.84	23.22	23.24	24.60
	Pri-2012 with MP-2021				
	Generational projection and				
United States	white collar adjustment	21.97	23.35	23.39	24.75
Germany	Heubeck 2018G	20.62	23.36	24.04	26.26

Table 20.5b

Mortality tables and life expectancies for major plans – prior period

in years, as of December 3:	1,2021	Life expecta	ancy at age 65	Life expecta	ancy at age 65
•		•	male currently	·	male currently
	_	aged 65	aged 45	aged 65	aged 45
Country	Mortality table for major plans				
	BVG 2020 with generational				
	projections according to CMI				
	model adapted to Swiss mortality				
Switzerland	with a long-term trend rate of 1.25%	21.79	23.42	23.52	25.10
	SAPS Series 3 with CMI_2020				
	projection with plan specific				
United Kingdom	adjustments	21.93	22.93	23.92	25.12
	Pri-2012 with MP-2020				
	Generational projection and white				
	collar adjustment	21.78	23.16	23.18	24.53
	Pri-2012 with MP-2021				
	Generational projection and white				
United States	collar adjustment	21.90	23.28	23.33	24.69
Germany	Heubeck 2018G	20.47	23.23	23.92	26.15

Table 20.6 shows the expected benefits to be paid under the Group's major plans in the future. It should be noted that actual amounts may vary from expected amounts. Therefore, future benefit payments may differ from the amounts shown.

Table 20.6

Maturity profile of future benefit payments for major plans

Table 20.6								
as of December 31				2022				2021
		United	United			United	United	
	Switzerland	Kingdom	States	Germany	Switzerland	Kingdom	States	Germany
Duration of the defined								
benefit obligation (in years)	11.8	15.2	10.5	12.0	13.7	19.0	12.1	13.9
Maturity analysis of								
benefits expected to be								
paid (in USD millions):								
<1 year	314	304	219	63	307	329	210	61
1 to 5 years	1,170	1,201	850	244	1,148	1,603	855	232
5 to 10 years	1,349	1,891	1,022	335	1,285	2,531	1,035	318

Table 20.7 sets out the sensitivity of the defined benefit obligation to changes in key actuarial assumptions. The effect on the defined benefit obligation shown allows for an alternative value for each assumption while the other actuarial assumptions remain unchanged. While this table illustrates the overall impact on the defined benefit obligation of the changes shown, the significance of the impact and the range of reasonably possible alternative assumptions may differ between the different plans that comprise the overall defined benefit obligation. In particular, the plans differ in benefit design, currency and average term, meaning that different assumptions have different levels of significance for different plans. The sensitivity analysis is intended to illustrate the inherent uncertainty in the evaluation of the defined benefit obligation under market conditions at the measurement date. Its results cannot be extrapolated due to non-linear effects that changes in the key actuarial assumptions may have on the overall defined benefit obligation. Furthermore, the analysis does not indicate a probability of such changes occurring and it does not necessarily represent the Group's view of expected future changes in the defined benefit obligation. Any management actions that may be taken to mitigate the inherent risks in the post-employment defined benefit plans are not reflected in this analysis.

Table 20.7

Sensitivity analysis of significant actuarial assumptions

1.0.0.0		
f	Defined be	nefit obligation1
in USD millions, as of December 31	2022	2021
Discount rate +50 bps	978	1,851
Discount rate -50 bps	(1,096)	(2,112)
Salary increase rate +50 bps	(38)	(78)
Salary decrease rate –50 bps	37	75
Price inflation increase rate +50 bps	(651)	(1,245)
Price inflation decrease rate -50 bps	594	1,122
Cash balance interest credit rate +50 bps	(62)	(80)
Cash balance interest credit rate –50 bps	59	54
Mortality 10% increase in life expectancy	(1,109)	(2,294)
Mortality 10% decrease in life expectancy	1,140	2,239
Mortality 10% decrease in life expectancy	1,140	2,23

¹ A negative number indicates an increase and a positive number indicates a decrease in the defined benefit obligation.

21. Share-based compensation and cash incentive plans

The Group has adopted various share-based compensation and cash incentive plans to attract, retain and motivate employees. The plans are designed to reward employees for their contribution to the performance of the Group and to encourage employee share ownership. Share-based compensation plans include performance-based share plans and employee share purchase plans. Share-based compensation plans are based on the provision of Zurich Insurance Group Ltd shares.

a) Cash incentive plans

The Group's short-term incentive plan (STIP) is utilized across the Group and, in many countries covers all employees in that country who are selected to participate in a short-term incentive plan. In addition, there may be other local short-term incentive plans in place. Awards are made in cash, based on the accomplishment of both organizational and individual performance objectives. The expense recognized for these cash incentive plans amounted to USD 607 million and USD 597 million for the years ended December 31, 2022 and 2021, respectively.

b) Share-based compensation plans for employees

The Group encourages employees to own shares in Zurich Insurance Group Ltd and has set up a framework based on the implementation of performance share programs. Actual plans are tailored to meet local market requirements.

The cost of share-based payments depends on various factors, including achievement of targets, and are subject to the discretion of the Remuneration Committee and the Board. Costs may therefore vary significantly from year to year. The net amounts of USD 246 million and USD 279 million for the years ended December 31, 2022 and 2021, respectively, reflect all aspects of share-based compensation, including adjustments made during the year.

The explanations below provide a more detailed overview of the main plans of the Group.

Employee share plans

Share incentive plans for employees in the UK

The Group established an Inland Revenue approved Share Incentive Plan and launched the Partnership Shares element of this plan in 2003, which enabled participating employees to make monthly purchases of Zurich Insurance Group Ltd shares at the prevailing market price from their gross earnings. This plan was terminated in 2007. There were 9 and 16 participants in the plan as of December 31, 2022 and 2021, respectively.

A revised Partnership Share Scheme was launched in March 2013. Participants benefit from purchasing shares by making deductions from gross salary up to a maximum of GBP 1,800 or 10 percent of their year-to-date earnings. There were 744 and 694 active participants in the plan as of December 31, 2022 and 2021, respectively.

The Group also operates a profit-sharing element of the Share Incentive Plan (Reward Shares) which was launched in 2004 with annual share allocations being made in May each year subject to business performance. The awards are based on business operating profit (BOP) after tax for the year achieved by the business unit of each participating employee. Individual awards are subject to a maximum of 5 percent of a participant's base salary (before any flexible benefit adjustments) with an overall maximum of GBP 3,600. The total number of participating employees in Reward Shares as of December 31, 2022 and 2021 was 4,319 and 3,997, respectively.

A Dividend Shares scheme was launched in 2014 which allows employees to reinvest their dividends from Partnership Shares and Reward Shares. As of December 31, 2022 and 2021, there were 569 and 564 participants in the scheme, respectively.

Share incentive plan for employees in Switzerland

Under the Employee Share Plan, eligible employees are allowed to acquire sales-restricted shares at a 30 percent discount to the market value. The maximum permitted investment at the preferential price in shares is equivalent to CHF 3,500 per employee per annum. During 2022, 4,515 employees were eligible to participate in the plan, compared with 4,383 in 2021. For the years ended December 31, 2022 and 2021, 2,331 and 2,240 employees, respectively, purchased shares under the 2022 and 2021 share plans.

The Group Long-Term Incentive Plan (LTIP)

Participants in this plan are allocated a target number of performance shares units (PSUs) as notional shares of Zurich Insurance Group Ltd in April each year. The number of PSUs is calculated as a percentage of the annual base salary of each participant. To further align participants with the interests of shareholders, PSUs are credited with dividend equivalent units (DEUs) during the vesting period to compensate participants in LTIP for dividends paid to shareholders.

PSUs allocated in 2022 will vest after a period of three years following the year of allocation (three-year cliff vesting), with the actual level of vesting between 0 percent and 200 percent of the overall target shares (PSUs allocated and DEUs that accrued during the vesting period), depending on the achievement of pre-defined performance criteria. The performance criteria used to determine the level of vesting are the Group's net income attributable to shareholders' return on common shareholders' equity (NIAS ROE), the position of its relative total shareholder return (TSR) measured against an international peer group of insurance companies, and the achievement of cash remittance targets. The three pre-defined performance criteria are each assessed over a period of three consecutive financial years starting in the year of allocation and have an equal weighting. One half of the shares that vest are sales-restricted for a further three years for members of the Executive Committee. As of December 31, 2022 and 2021 there were 1,305 and 1,228 participants in this plan, respectively.

Table 21

Shares allocated during the period

for the years ended December 31				Fair value at the
		Number	allocati	on date (in CHF)¹
	2022	2021	2022	2021
Shares allocated during the period	408,015	422,606	451	406

¹ Fair value measured using the market price of the shares at the allocation date and volatility indicators.

The shares allocated each year are based on parameters under the Group's LTIP. The level of vesting will depend on the level of achievements in the performance criteria.

22. Commitments and contingencies, legal proceedings and regulatory investigations

The Group has provided contractual commitments and financial guarantees to external parties, associates and joint ventures as well as partnerships. These arrangements include commitments under certain conditions to make liquidity advances to cover default principal and interest payments, make capital contributions or provide equity financing.

Table 22

Quantifiable commitments and contingencies

in USD millions	12/31/2022	12/31/2021
Remaining commitments under investment agreements ¹	1,045	1,065
Guarantees and letters of credit ²	838	978
Undrawn loan commitments	_	1
Other commitments and contingent liabilities ³	427	717

- Amount in 2021 restated as private debt investments are not required to be reported as commitments (soft commitments). Guarantee features embedded in life insurance products are not included.
- Includes USD 11 million future cash outflows in 2022 and USD 79 million future cash outflows in 2021 that the Group as lessee is potentially exposed to which are not reflected in the measurement of lease liabilities in the balance sheet

Commitments under investment agreements

The Group has committed to contribute capital to third parties that engage in making investments in direct private equity, private equity funds, private debt and real estate. Commitments may be called by the counterparty over the term of the investment (generally three to five years) and must be funded by the Group on a timely basis.

Guarantees and letters of credit

In 2022 and 2021, USD 572 million and USD 643 million, respectively, related to guarantees in the aggregate amount of GBP 475 million which were provided to the directors of a wholly owned subsidiary in connection with the repatriation of capital. These guarantees have no expiry date.

The Group knows of no event of default that would require it to satisfy financial guarantees. Irrevocable letters of credit have been issued to secure certain reinsurance contracts.

The Group is active in numerous countries where insurance guarantee funds exist. The design of such funds varies from jurisdiction to jurisdiction. In some, funding is based on premiums written; in others, the Group may be called upon to contribute to such funds in case of a failure of another market participant. In addition, in some jurisdictions the amount of contribution may be limited, for example, to a percentage of the net underwriting reserve net of payments already made.

The Group carries certain contingencies in the ordinary course of business in connection with the sale of its companies and businesses. These are primarily in the form of indemnification obligations provided to the acquirer in a transaction in which a Group company is the seller. They vary in scope and duration by counterparty and generally are intended to shift the potential risk of certain unquantifiable and unknown loss contingencies from the acquirer to the seller.

Zurich Insurance Group Ltd has provided unlimited guarantees in support of entities belonging to the Zurich Capital Markets group of companies.

Other contingent liabilities

The Group has received notices from various tax authorities asserting deficiencies in taxes for various years. The Group is of the view that the ultimate outcome of these reviews will not materially affect the Group's consolidated financial position.

The Group has commitments to provide collateral on certain contracts in the event of a financial strength downgrading for Zurich Insurance Company Ltd from the current AA by Standard & Poor's. Should the rating by Standard & Poor's fall to A+, then the additional collateral based on information available amounts to nil as of both December 31, 2022 and 2021.

In common with other insurance companies, the Group is mindful of the trend toward enhanced consumer protection. There is significant uncertainty about the ultimate cost this trend might have on our business. The main areas of uncertainty concern court decisions as well as the volume of potential customer complaints related to sales activities and withdrawal rights, and their respective individual assessments.

Pledged assets

The majority of assets pledged to secure the Group's liabilities relate to debt securities pledged under short-term sale and repurchase agreements. The total amount of pledged financial assets including the securities under short-term sale and repurchase agreements amounted to USD 2.2 billion and USD 2.1 billion as of December 31, 2022 and 2021, respectively.

Terms and conditions associated with the financial assets pledged to secure the Group's liabilities are usual and standard in the markets in which the underlying agreements were executed.

Legal, compliance and regulatory developments

The Group's business is subject to extensive supervision, and the Group is in regular contact with various regulatory authorities. The Group is also involved in legal and arbitration proceedings and regulatory investigations arising, for the most part, in the ordinary course of its business operations in various jurisdictions where it operates. In addition, the Group and/or its subsidiaries are involved in legal matters arising out of transactions involving the transfer of portfolios or businesses. These legal matters can include claims brought by purchasers or other parties asserting claims for damages on various theories, including failure to disclose material information, failure to perform contractual duties or otherwise seeking to impose liability on the Group and/or its subsidiaries. With respect to significant legal or regulatory matters, the Group considers the likelihood of a negative outcome, and when the likelihood of a negative outcome is probable and the amount of the loss can be reliably estimated, a reserve or provision is established to record the estimated loss for the expected outcome. While the Group believes that it is not a party to, nor are any of its subsidiaries the subject of, any unresolved current legal proceedings, claims, litigation and investigations that will have a material adverse effect on the Group's consolidated financial condition, proceedings are inherently unpredictable, and it is possible that the outcome of any proceeding could have a material impact on results of operations in the particular reporting period in which it is resolved.

- Specifically, COVID-19-related coverage litigation: Several of the Group's subsidiaries as well as other insurance companies are involved in litigation relating to the extent to which COVID-19 was intended to be covered under Property Damage Business Interruption policies. A limited number of class actions have also been initiated. Most of the litigation has been filed in United States courts in addition to test cases filed in Australia and some in the UK, which have predominantly found in favor of insurers. The final determination of outcomes may take many years as appeals are pursued by the plaintiffs and insurers, including the Group or its subsidiaries.
- In 2016, the Group, on its own initiative, undertook an internal review of the life insurance, savings and pension business sold by its non-U.S. operating companies with relevant cross-border business to customers with a nexus to the U.S. The review confirmed that the Group's cross-border business with U.S. persons was very limited and of a legacy nature, with the large majority of sales having occurred more than a decade ago. The review also confirmed that the Group's U.S. operating companies were not involved in or connected to those activities. The Group voluntarily disclosed the results of the review and the regulatory issues presented by sales to U.S. residents to the Swiss Financial Market Supervisory Authority (FINMA), the U.S. Department of Justice (DOJ) and other authorities. The Group continues to cooperate with these authorities.

In April 2019, the DOJ announced that Zurich Life Insurance Company Ltd (ZLIC) and Zurich International Life Limited (ZILL) entered into a non-prosecution agreement (NPA) with the DOJ, which memorializes the DOJ's decision not to prosecute these entities for any U.S. tax-related offenses in connection with legacy cross-border sales to U.S. persons. Under the terms of the NPA, ZLIC and ZILL have agreed to comply with certain specified conditions during the four-year term of the NPA.

This resolution has not had, and will not have, an adverse effect on the Group's business or consolidated financial condition.

23. Fair value measurement

To measure fair value, the Group gives the highest priority to quoted and unadjusted prices in active markets. In the absence of quoted prices, fair values are calculated through valuation techniques, making the maximum use of relevant observable market data inputs. Whenever observable parameters are not available, the inputs used to derive the fair value are based on common market assumptions that market participants would use when pricing assets and liabilities. Depending on the observability of prices and inputs to valuation techniques, the Group classifies instruments measured at fair value within the following three levels (the fair value hierarchy):

Level 1 – includes assets and liabilities for which fair values are determined directly from unadjusted current quoted prices resulting from orderly transactions in active markets for identical assets/liabilities.

Level 2 – includes assets and liabilities for which fair values are determined using significant inputs other than quoted prices included in level 1 that are observable for the asset or liability, either directly or indirectly. These inputs include quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, and other observable market inputs.

Level 3 – includes assets and liabilities for which fair values are determined using valuation techniques with at least one significant input not being based on observable market data. This approach is used only in circumstances when there is little, if any, market activity for a certain instrument, and the Group is required to rely on third-party providers or develop internal valuation inputs based on the best information available about the assumptions that market participants would use when pricing the asset or liability.

The governance framework and oversight of the Group's standards and procedures regarding the valuation of financial instruments measured at fair value lies within the responsibility of Group Risk Management, Group Investment Management, Treasury Capital Management and Group Finance. Specialists from these departments ensure the adequacy of valuation models, approve methodologies and sources to derive model input parameters, provide oversight over the selection of third-party pricing providers, and on a semi-annual basis review the classification within the fair value hierarchy of the financial instruments in scope.

The Group makes extensive use of third-party pricing providers to determine the fair values of its available-for-sale and fair value through profit or loss financial instruments, and only in rare cases places reliance on prices that are derived from internal models. Investment accounting, operations and process functions are independent from those responsible for buying and selling the assets, and are responsible for receiving, challenging and verifying values provided by third-party pricing providers to ensure that fair values are reliable, as well as ensuring compliance with applicable accounting and valuation policies. There are quality control procedures used depend on the nature and complexity of the invested assets. They include variance and stale price analysis, and comparisons with fair values of similar instruments and with alternative values obtained from asset managers and brokers. Model review activities are also conducted for evaluated prices supplied by third parties to verify that their valuation processes, methodologies, models, and governance and control framework comply with applicable internal guidance, and that the allocation of those instruments within the fair value hierarchy is adequate. They include the compilation and review of relevant documentation as well meetings with third-party representatives to supplement the analysis.

Table 23.1 compares the fair value with the carrying value of financial assets and financial liabilities. Certain financial instruments are not included in this table as their carrying value is a reasonable approximation of their fair value. Such instruments include cash and cash equivalents, obligations to repurchase securities, deposits made under assumed reinsurance contracts, deposits received under ceded reinsurance contracts and other financial assets and liabilities. This table excludes financial assets and financial liabilities related to unit-linked contracts.

Table 23.1

Fair value and carrying value of financial assets and financial liabilities

in USD millions, as of December 31		Total fair value	Total	carrying value
IT OSD Millions, as of December 31	2022	2021	2022	2021
Available-for-sale securities	2022	2021	2022	2021
Equity securities	9,590	14,008	9,590	14,008
Debt securities	94,440	136,005	94,440	136,005
Total available-for-sale securities	104,030	150,013	104,030	150,013
Fair value through profit or loss securities	,	,	,	
Equity securities	3,540	4,571	3,540	4,571
Debt securities	6,386	7,181	6,386	7,181
Total fair value through profit or loss securities	9,926	11,752	9,926	11,752
Derivative assets	766	938	766	938
Held-to-maturity debt securities	2,925	2,358	2,838	1,897
Mortgage loans	5,103	6,371	5,497	6,106
Other loans	3,493	8,284	3,444	7,053
Total financial assets	126,242	179,716	126,501	177,758
Derivative liabilities	(1,167)	(532)	(1,167)	(532)
Financial liabilities held at amortized cost				
Liabilities related to investment contracts	(830)	(1,042)	(769)	(837)
Senior debt	(4,468)	(5,487)	(5,071)	(5,327)
Subordinated debt	(7,773)	(10,287)	(8,899)	(9,782)
Total financial liabilities held at amortized cost	(13,070)	(16,815)	(14,739)	(15,946)
Total financial liabilities	(14,238)	(17,347)	(15,907)	(16,478)

All of the Group's financial assets and financial liabilities are initially recorded at fair value. Subsequently, available-forsale financial assets, fair value through profit or loss financial assets, and derivative financial instruments are carried at fair value as of the balance sheet date. All other financial instruments are carried at amortized cost. The valuation techniques used to determine fair value measurement are described below.

Fair values of held-to-maturity debt securities and senior and subordinated debt are obtained from third-party pricing providers. The fair value received from these pricing providers may be based on quoted prices in an active market for identical assets, alternative pricing methods such as matrix pricing or an income approach employing discounted cash flow models. Such instruments are categorized within level 2.

Discounted cash flow models are used for mortgage loans and other loans (except for loans classified as private debt). The discount yields in these models use interest rates that reflect the return a market participant would expect to receive on instruments with similar remaining maturities, cash flow patterns, currencies, credit risk and collateral. Such instruments are categorized within level 3.

Different valuation techniques are used to value private debt instruments, including the income approach (such as discounted cash flow models) or the market approach (such as relative value models). Where prices are obtained from an evaluated pricing service from a data vendor in which price transparency data indicates no use of significant unobservable inputs, they are categorized within Level 2. All other prices are classified to Level 3 unless factual evidence indicates that unobservable inputs are not significant to the valuation.

Fair values of liabilities related to investment contracts and investment contracts with DPF are determined using discounted cash flow models. Such instruments are categorized within level 3 due to the unobservability of certain inputs used in the valuation.

Recurring fair value measurements of assets and liabilities

Fair value hierarchy non-unit-linked current period

Table 23.2a				
in USD millions, as of December 31, 2022	Level 1	Level 2	Level 3	Total
Available-for-sale securities				
Equity securities	6,430	1,642	1,517	9,590
Debt securities	_	89,446	4,993	94,440
Total available-for-sale securities	6,430	91,089	6,510	104,030
Fair value through profit or loss securities				
Equity securities	1,046	474	2,021	3,540
Debt securities	_	6,358	28	6,386
Total fair value through profit or loss securities	1,046	6,832	2,049	9,926
Derivative assets	5	739	21	766
Investment property	_	2,896	11,902	14,798
Reinsurers' share of liabilities for insurance contracts				
fair value option ¹	_	_	142	142
Total	7,481	101,556	20,624	129,661
Derivative liabilities	_	(450)	(717)	(1,167)
Liabilities for insurance contracts fair value option ²	_	_	(1,558)	(1,558)
Total	_	(450)	(2,275)	(2,725)

Included within reinsurers' share of liabilities for insurance contracts.
 Included within liabilities for insurance contracts.

Fair value hierarchy non-unit-linked prior period

Level 1	Level 2	Level 3	Total
9,052	3,002	1,953	14,008
_	129,857	6,148	136,005
9,052	132,859	8,101	150,013
1,804	617	2,150	4,571
_	7,141	40	7,181
1,804	7,758	2,190	11,752
1	834	103	938
_	3,270	10,800	14,070
_	_	184	184
10,857	144,721	21,379	176,957
(3)	(375)	(154)	(532)
_	_	(1,999)	(1,999)
(3)	(375)	(2,153)	(2,532)
	9,052 - 9,052 1,804 - 1,804 1 - 10,857 (3) -	9,052 3,002 - 129,857 9,052 132,859 1,804 617 - 7,141 1,804 7,758 1 834 - 3,270 10,857 144,721 (3) (375)	9,052 3,002 1,953 - 129,857 6,148 9,052 132,859 8,101 1,804 617 2,150 - 7,141 40 1,804 7,758 2,190 1 834 103 - 3,270 10,800 184 10,857 144,721 21,379 (3) (375) (154) - (1,999)

¹ Included within reinsurers' share of liabilities for insurance contracts.
2 Included within liabilities for insurance contracts.

Table 23.3:

Fair value hierarchy – unit-linked – current period

Level 1	Level 2	Level 3	Total
90,602	14,347	1,786	106,736
_	10,146	27	10,173
419	1,833	_	2,251
91,021	26,326	1,814	119,160
5	64	_	69
_	_	2,233	2,233
91,026	26,390	4,046	121,462
_	(50,991)	_	(50,991)
(27)	(1)	_	(28)
(27)	(50,992)	_	(51,019)
	90,602 - 419 91,021 5 - 91,026	90,602 14,347 - 10,146 419 1,833 91,021 26,326 5 64 91,026 26,390 - (50,991) (27) (1)	90,602 14,347 1,786 - 10,146 27 419 1,833 - 91,021 26,326 1,814 5 64 - - 2,233 91,026 26,390 4,046 - (50,991) - (27) (1) -

¹ Excluding cash and cash equivalents.

Table 23.3k

Fair value hierarchy – unit-linked – prior period

Table 23.3b				
in USD millions, as of December 31, 2021	Level 1	Level 2	Level 3	Total
Fair value through profit or loss securities				
Equity securities	108,023	16,142	1,516	125,680
Debt securities	_	10,136	30	10,166
Other loans	24	2,801	_	2,825
Total fair value through profit or loss securities	108,046	29,078	1,546	138,671
Derivative assets	2	9	_	12
Investment property	_	_	3,167	3,167
Total investments for unit-linked contracts ¹	108,049	29,088	4,713	141,850
Financial liabilities at FV through profit or loss				
Liabilities related to unit-linked investment contracts	_	(60,930)	_	(60,930)
Derivative liabilities	(8)	(14)	_	(21)
Total	(8)	(60,944)	_	(60,951)

¹ Excluding cash and cash equivalents.

Within level 1, the Group has classified common stocks, exchange-traded derivative financial instruments, investments in unit trusts that are exchange listed or daily published and other highly liquid financial instruments.

Within level 2, the Group has classified government and corporate bonds, thinly traded common stocks, investments in unit trusts without daily prices or with sales restrictions, agency mortgage-backed securities (MBS), 'AAA' rated non-agency MBS and other asset-backed securities (ABS) and certain private debt instruments where valuations are obtained from independent pricing providers. The fair value received from these pricing providers may be based on quoted prices in an active market for similar assets, alternative pricing methods such as matrix pricing or an income approach employing discounted cash flow models. If quoted prices are not available, then fair values are estimated on the basis of information from external pricing providers or internal pricing models (for example, discounted cash flow models or other recognized valuation techniques).

Where there are active and transparent real estate markets and no significant adjustments to the observable data are required, the investment property held by the Group is classified within level 2.

Over-the-counter derivative financial instruments are valued using internal models and third-party valuation services. The fair values are determined using dealer price quotations, discounted cash flow models and option pricing models, which use various inputs including current market and contractual prices for underlying instruments, time to expiry, yield curves and volatility of underlying instruments. Such instruments are classified within level 2 as the inputs used in pricing models are generally market observable or derived from market observable data.

Fair values of liabilities related to unit-linked investment contracts are usually determined by reference to the fair value of the underlying assets backing these liabilities. Such instruments are classified within level 2.

Within level 3, the Group has classified:

- Unlisted stocks, private equity funds and hedge funds that are not actively traded. The valuations of such instruments are obtained from quarterly net asset value information from the fund manager and annual audited financial statements provided by the issuing company. The prices are generally derived for each underlying company in line with the International Private Equity and Venture Capital Valuation (IPEV) guidelines, using discounted cash flows (income approach) or multiple methods (market approach). The Group has only limited insight into the specific inputs used by the fund managers; hence, a narrative sensitivity analysis is not applicable.
- Non-agency MBS, ABS and collateralized loan obligations (CLO) rated below 'AAA' and private debt holdings including certain private placements that are valued by independent pricing providers or external asset managers using primarily the discounted cash flow method with significant unobservable input parameters such as asset prepayment rate, default rates and credit spreads. A significant market yield increase of the benchmark securities in isolation could result in a decreased fair value, while a significant market yield decrease could result in an increased fair value. However, a reasonable variation in the option-adjusted spread taken from a set of benchmark securities with similar characteristics has only immaterial impact on fair value.
- All investment properties for which there are no active and transparent real estate markets or observable data available. The valuation for majority of these investment properties other than certain investment properties located in Switzerland are typically performed annually by independent qualified appraisers. The parameters used for the valuations are specific to each country or region and vary significantly across different markets. External appraisals are reviewed by internal real estate valuation specialists; however, since the unobservable inputs were not developed by the Group they are not readily available. In some cases, where external valuations are obtained at least every three years, interim valuations by internal valuation specialists are performed. During 2022, Zurich refined its valuation model for investment properties located in Switzerland to align more closely to the market practice. The refined valuation model is based on a discounted cash flow method and is applied to each individual property based on its expected cash flows. The unobservable input parameters include the future transition cost for carbon emission and capital expenditures to achieve the desired environmental footprint depending on the current condition of each individual property. These input parameters are combined into a synthetic spread applied to the otherwise observable discount rate. The refined methodology (including market movements from the previous valuation date) resulted in an increase in fair value of the investment property by USD 550 million.
- Overall, as of December 31, 2022, around 30 percent of level 3 investment properties were covered by internal valuations. Significant increases/(decreases) in synthetic spread, in isolation, would result in a lower/(higher) fair value measurement. For example, an increase in spread of 10bps, considered in isolation, would result in a decrease in fair value of 3% or approximately USD 180 million as of December 31, 2022.
- Options and long-dated derivative financial instruments with fair values determined using counterparty valuations or calculated using significant unobservable inputs such as historical volatilities, historical correlation, implied volatilities from the counterparty or derived using extrapolation techniques. Quantitative information on unobservable inputs is not available when counterparty pricing was used. For internally calculated fair values, significant increases/(decreases) in volatilities or correlation would result in a significantly higher/(lower) fair value measurement; however, the overall effect on the Group's financial statements would not be material.
- Reinsurers' share of liabilities and liabilities for insurance contracts fair value option. The fair values are determined using discounted cash flow models. The discount factors used are based on derived rates for LIBOR swap forwards, spreads to U.S. Treasuries and spreads to U.S. corporate A or higher rated bond segments for financials, industrials and utilities. The liability-projected cash flows use contractual information for premiums, benefits and agent commissions, administrative expenses under third-party administrative service agreements and best estimate parameters for policy decrements. The primary unobservable inputs are the policy decrement assumptions used in projecting cash flows. These include disability claim parameters for incidence and termination (whether for recovery or death) and lapse rates. Significant increases/(decreases) in claim incidence rates and significant decreases/(increases) in claim termination rates would result in a significantly higher/(lower) fair value measurement.

For details on Group investments sensitivities, refer to section analysis by risk type in the risk review.

The fair value hierarchy is reviewed at the end of each reporting period to determine whether significant transfers between levels have occurred. Transfers between levels mainly arise as a result of changes in market activity and observability of the inputs to the valuation techniques used to determine the fair value of certain instruments.

For the year ended December 31, 2022, the Group recorded a transfer of USD 430 million of unit-linked fair value through profit or loss equity securities out of level 2 into level 1 for mutual funds with daily published prices.

Table 23.4a

Development of assets and liabilities classified within level 3 non-unit-linked current period

Table 23.4a							
in USD millions	Availa	able-for-sale	Fair value through profit				
		securities	or lo	ss securities			
	Equity	Debt	Equity	Debt	Derivative	Derivative	Investment
	securities	securities	securities	securities	assets	liabilities	property
As of January 1, 2022	1,953	6,148	2,150	40	103	(154)	10,800
Realized gains/(losses) recognized							
in income ¹	189	2	16	_	_	_	30
Unrealized gains/(losses) recognized							
in income ^{1,2}	(8)	(39)	(53)	(2)	(2)	37	675
Unrealized gains/(losses) recognized							
in other comprehensive income	(273)	(789)	_	_	(72)	(608)	_
Purchases	220	717	254	1	10	6	515
Settlements/sales/redemptions	(453)	(875)	(331)	(1)	(8)	_	(231)
Transfer from/to assets held for own use	_	_	_	_	_	_	1
Transfer to assets held for sale	_	_	_	_	_	_	(35)
Transfers into level 3	4	114	_	_	_	-	_
Transfers out of level 3	(6)	(105)	_	(7)	_	-	-
Acquisitions and divestments ³	(30)	_	_	_	(4)	_	344
Foreign currency translation effects	(80)	(179)	(15)	(3)	(7)	1	(197)
As of December 31, 2022	1,517	4,993	2,021	28	21	(717)	11,902

- Presented as net capital gains/(losses) and impairments on Group investments in the audited consolidated income statements (see note 6).

 Unrealized gains/(losses) recognized in income for available-for-sale securities relate to impairments.

 The movements are related to an agreement entered into by Zurich Deutscher Herold Lebensversicherung Aktiengesellschaft to sell its legacy traditional life insurance back book (see note 5).

For the year ended December 31, 2022, the Group transferred USD 114 million of available-for-sale debt securities from level 2 into level 3 corresponding to private debt instruments that exhibit higher reliance on unobservable valuation inputs, and non-agency ABS and MBS with a credit rating downgrade from AAA. This effect is approximately offset by the transfer of USD 105 million of available-for-sale debt securities out of level 3 into level 2 attributable to private debt instruments with a higher reliance on observable valuation inputs and non-agency ABS and MBS whose credit rating has been upgraded to AAA.

Table 23.4b

Development of assets and liabilities classified within level 3 non-unit-linked prior period

in USD millions	Avail	able-for-sale	Fair value through profit				
		securities	or lo	ss securities			
	Equity	Debt	Equity	Debt	Derivative	Derivative	Investment
	securities	securities	securities	securities	assets	liabilities	property
As of January 1, 2021	1,746	7,976	2,318	83	353	(52)	11,301
Realized gains/(losses) recognized							
in income ¹	483	15	25	_	18	(87)	39
Unrealized gains/(losses) recognized							
in income ^{1,2}	_	11	129	_	(10)	(9)	359
Unrealized gains/(losses) recognized							
in other comprehensive income	296	(181)	_	_	(208)	(91)	6
Purchases	321	980	357	_	7	(11)	652
Settlements/sales/redemptions	(881)	(1,459)	(683)	(46)	(29)	90	(730)
Transfer from/to assets held for own use	_	_	_	_	_	_	21
Transfers into level 3	25	201	27	5	_	(1)	_
Transfers out of level 3	_	(1,250)	_	_	_	_	_
Acquisitions and divestments	(1)	_	-	-	_	_	(379)
Foreign currency translation effects	(36)	(144)	(23)	_	(27)	8	(469)
As of December 31, 2021	1,953	6,148	2,150	40	103	(154)	10,800

- Presented as net capital gains/(losses) and impairments on Group investments in the audited consolidated income statements (see note 6).

For the year ended December 31, 2021, the Group recorded a transfer of USD 66 million of non-unit-linked fair value through profit or loss equity securities out of level 1 into level 2 for mutual funds without daily published prices.

Table 23.5a

Development of liabilities for insurance contracts fair value option classified within level 3 current period

in USD millions	Gross	Ceded	Net
As of January 1, 2022	1,999	(184)	1,815
Premiums	32	(3)	29
Claims	(185)	14	(171)
Fee income and other expenses	(79)	14	(64)
Interest and bonuses credited to policyholders	(213)	17	(196)
Changes in assumptions	4	(1)	3
As of December 31, 2022	1,558	(142)	1,416

Table 23.5h

Development of liabilities for insurance contracts fair value option classified within level 3 prior period

As of December 31, 2021	1,999	(184)	1,815
Changes in assumptions			
Interest and bonuses credited to policyholders	(41)	3	(38)
Fee income and other expenses	(89)	14	(74)
Claims	(206)	15	(191)
Premiums	41	(4)	38
e As of January 1, 2021	2,294	(213)	2,081
in USD millions	Gross	Ceded	Net
Table 23.50			

Table 23.6a

Development assets and liabilities classified within level 3 unit-linked current period

in USD millions	Fair value throug	h profit or loss		
		securities		
	Equity	Debt	Investment	
	securities	securities	property	
As of January 1, 2022	1,516	30	3,167	
Realized gains/(losses) recognized in income ¹	14	_	(64)	
Unrealized gains/(losses) recognized in income ¹	(70)	(3)	(332)	
Unrealized gains/(losses) recognized in shareholders' equity	_	_	_	
Purchases	375	_	185	
Sales/redemptions	(63)	(1)	(402)	
Transfers into level 3	18	5	_	
Transfers out of level 3	_	_	_	
Foreign currency translation effects	(3)	(3)	(322)	
As of December 31, 2022	1,786	27	2,233	

¹ Presented as net investment result on unit-linked investments in the consolidated income statements.

There has been no significant movement in unit-linked fair value through profit and loss equity or debt securities.

Development assets and liabilities classified within level 3 unit-linked prior period

As of December 31, 2021	1.516	30	3.167		
Foreign currency translation effects	(4)	(1)			
Transfers out of level 3	_	(4)	_		
Transfers into level 3	17	11	_		
Sales/redemptions	(65)	(5)	(507)		
Purchases	274	6	347		
Unrealized gains/(losses) recognized in shareholders' equity	_	(1)	_		
Unrealized gains/(losses) recognized in income ¹	123	_	212		
Realized gains/(losses) recognized in income ¹	7	(1)	158		
As of January 1, 2021	1,163	25	2,957		
	securities	securities	property		
	Equity	Debt	Investment		
		securities			
in USD millions	Fair value thr	Fair value through profit or loss			
Table 23.6b					

¹ Presented as net investment result on unit-linked investments in the consolidated income statements.

For the year ended December 31, 2021, the Group recorded a transfer of USD 345 million of unit-linked fair value through profit or loss equity securities out of level 2 into level 1 for mutual funds with daily published prices.

24. Analysis of financial assets

Tables 24.1a and 24.1b provide an analysis for non-unit-linked businesses of the age of financial assets that are past due but not impaired, and of financial assets that are individually determined to be impaired.

Table 24.1a

Analysis of financial assets – current period

in USD millions, as of December 31, 2022	Receivables				
				and other	
	Debt	Mortgage	Other	financial	
	securities	loans	loans	assets	Total
Neither past due nor impaired financial assets	103,638	5,471	3,423	14,429	126,961
Past due but not impaired financial assets					
Past due by:					
1 to 90 days	_	19	16	1,760	1,795
91 to 180 days	_	1	-	258	259
181 to 365 days	_	2	1	283	286
> 365 days	_	3	3	243	249
Past due but not impaired					
financial assets	_	25	21	2,543	2,590
Financial assets impaired	27	11	3	194	235
Gross carrying value	103,664	5,507	3,448	17,166	129,785
Less: impairment allowance					
Impairment allowances on individually assessed financial assets	_	7	3	138	149
Impairment allowances on collectively assessed financial assets	_	3	_	176	179
Net carrying value	103,664	5,497	3,444	16,852	129,458

Table 24.1b

Analysis of financial assets – prior period

in USD millions, as of December 31, 2021				Receivables	
				and other	
	Debt	Mortgage	Other	financial	
	securities	loans	loans	assets	Total
Neither past due nor impaired financial assets	145,054	6,068	7,044	12,242	170,408
Past due but not impaired financial assets					
Past due by:					
1 to 90 days	_	26	3	1,515	1,545
91 to 180 days	_	3	_	232	234
181 to 365 days	_	2	_	194	196
> 365 days	_	4	_	270	274
Past due but not impaired					
financial assets	_	35	3	2,210	2,248
Financial assets impaired	30	11	3	181	224
Gross carrying value	145,084	6,114	7,050	14,633	172,880
Less: impairment allowance					
Impairment allowances on individually assessed financial assets	_	5	(3)	123	124
Impairment allowances on collectively assessed financial assets	_	3	_	177	180
Net carrying value	145,084	6,106	7,053	14,333	172,576

Tables 24.2a and 24.2b show how the allowances for impairments of financial assets in tables 24.1a and 24.1b developed during the periods ended December 31, 2022 and 2021, respectively.

Table 24.2a

Development of allowance for impairments – current period

in USD millions	Mortgage	Other	
	loans	loans	Receivables
As of January 1, 2022	8	(3)	300
Increase/(decrease) in allowance for impairments	2	(21)	27
Amounts written-off	_	28	(9)
Acquisitions/(divestments) and transfers	_	_	8
Foreign currency translation effects	_	_	(12)
As of December 31, 2022	10	3	314

Table 24.2b

Development of allowance for impairments – prior period

As of December 31, 2021	8	(3)	300
Foreign currency translation effects			(20)
Acquisitions/(divestments) and transfers		_	(3)
Amounts written-off		(8)	(42)
Increase/(decrease) in allowance for impairments	1	(7)	33
As of January 1, 2021	8	12	332
	loans	loans	Receivables
in USD millions	Mortgage	Other	

The Group has elected to defer the full implementation of IFRS 9 until IFRS 17 becomes effective on January 1, 2023. For further information on the Group's eligibility to the temporary exemption from IFRS 9, please refer to note 2.

Under IFRS 9, the classification and measurement of all debt instruments will be driven by the business model in which these assets are held and by their contractual terms. The combined effect of the application of the business model and contractual cash flows characteristics determine whether the financial assets are measured at amortized cost, fair value with changes recognized in other comprehensive income (OCI) or fair value through profit or loss. The business model will be assessed at the date of the initial application of IFRS 9.

Debt instruments with contractual terms that give rise to cash flows that are solely payment of principal and interest (SPPI) on the principal amount outstanding will be measured at either amortized cost or at fair value with changes recognized in OCI, unless they are managed on a fair value basis. The assessment of the features of the contractual terms is referred to as the SPPI test. Debt instruments that do not pass the SPPI test will always be measured at fair value through profit or loss.

Equity instruments including fund investments will be accounted for at fair value through profit or loss. The Group does not intend to make use of the election to present changes in fair value of certain equity instruments that are not held for trading in OCI with no subsequent reclassification of realized gains or losses to the income statement.

Table 24.3a and Table 24.3b show the fair value and the carrying value at the end of current and previous reporting period for the following two groups of financial assets:

- Financial assets with contractual terms that give rise to cash flows that are SPPI;
- Other financial assets not passing the SPPI test, as well as financial assets managed on a fair value basis for which
 no SPPI assessment has been performed. Financial assets that have not passed the SPPI test include equities,
 callable bonds with significant prepayment features, hybrid bonds with certain cash flows at the discretion of the
 issuer and some ABS/MBS that do not fulfill the SPPI criteria for contractually linked instruments.

Net unrealized gains/(losses) on debt securities available for sale that are not SPPI amounted to USD (686) million and USD 212 million for the years ended December 31, 2022 and 2021, respectively. The carrying value on held-to-maturity debt securities, mortgage loans, other loans, and receivables include impairment allowances of USD 329 million and USD 320 million of the years ended December 31, 2022 and 2021, respectively.

Table 24.3a

Fair value and carrying value of financial assets split by SPPI and other financial assets current period

in USD millions, as of December 31, 2022		SPPI	Other fina	ncial assets		Total
		Carrying		Carrying		Carrying
	Fair value	value	Fair value	value	Fair value	value
Available-for-sale securities						
Equity securities	_	_	9,590	9,590	9,590	9,590
Debt securities	89,236	89,236	5,204	5,204	94,440	94,440
Total available-for-sale securities	89,236	89,236	14,794	14,794	104,030	104,030
Fair value through profit or loss securities						
Equity securities	_	_	3,540	3,540	3,540	3,540
Debt securities	_	_	6,386	6,386	6,386	6,386
Total fair value through profit or loss securities	_	_	9,926	9,926	9,926	9,926
Held-to-maturity debt securities	2,911	2,825	14	13	2,925	2,838
Mortgage loans	5,103	5,497	_	_	5,103	5,497
Other loans ¹	2,732	2,747	61	62	2,792	2,809
Receivables	15,341	15,341	_	_	15,341	15,341
Derivative assets	_	_	766	766	766	766
Total financial assets	115,323	115,646	25,560	25,560	140,882	141,206

¹ Do not include policyholder loans, which will come under IFRS 17 and are therefore not applicable for IFRS 9, of USD 700 million and USD 635 million for fair value and carrying

Fair value and carrying value of financial assets split by SPPI and other financial assets prior period

Table 24.3b						
in USD millions, as of December 31, 2021		SPPI	Other fina	ancial assets		Total
		Carrying		Carrying		Carrying
	Fair value	value	Fair value	value	Fair value	value
Available-for-sale securities						
Equity securities	_	_	14,008	14,008	14,008	14,008
Debt securities	127,622	127,622	8,383	8,383	136,005	136,005
Total available-for-sale securities	127,622	127,622	22,390	22,390	150,013	150,013
Fair value through profit or loss securities						
Equity securities	_	_	4,571	4,571	4,571	4,571
Debt securities	_	_	7,181	7,181	7,181	7,181
Total fair value through profit or loss securities	_	_	11,752	11,752	11,752	11,752
Held-to-maturity debt securities	2,358	1,897	_	_	2,358	1,897
Mortgage loans	6,371	6,106	_	_	6,371	6,106
Other loans ¹	7,456	6,344	34	55	7,490	6,399
Receivables	13,362	13,362	_	_	13,362	13,362
Derivative assets	_	_	938	938	938	938
Total financial assets	157,170	155,331	35,114	35,135	192,284	190,466

¹ Do not include policyholder loans, which will come under IFRS 17 and are therefore not applicable for IFRS 9, of USD 794 million and USD 654 million for fair value and carrying

With IFRS 9, the incurred loss impairment approach will be replaced by a forward-looking expected credit loss (ECL) approach that will apply to debt securities, loans and receivables that are not accounted for at fair value through profit or loss. Thus, the same ECL requirements will apply to all financial assets measured at amortized cost and those measured at fair value with changes recognized in OCI.

At initial recognition of a debt instrument, a loss allowance is recognized for expected credit losses resulting from default events within the next 12 months after the reporting date (12-month ECL). Such instruments are classified as Stage 1. The Group does not originate or acquire financial assets that are credit-impaired at initial recognition.

In the event of a significant increase in credit risk (SICR) since initial recognition, IFRS 9 requires the ECL allowance to be measured at an amount equal to lifetime expected credit losses resulting from all possible default events over the expected life of the financial instrument (lifetime ECL). Such instruments are referred to as Stage 2.

The Group applies the 'low credit risk practical expedient,' by assuming that no increase in credit risk has occurred since initial recognition for financial assets that have an external or internal rating equivalent to 'investment grade' (i.e., 'AAA' to 'BBB—') at the reporting date. For the remaining financial assets, the Group considers all relevant reasonable supporting information that is available without undue cost or effort when determining whether a SICR has occurred since initial recognition. An increase in credit risk is assessed using a transition matrix approach that determines SICR thresholds depending on the credit rating at initial recognition and residual time to maturity of the instrument. Where necessary, the quantitative assessment is supplemented by a qualitative assessment of the issuer's credit quality. For certain less material portfolios, including residential mortgage loans, the '30 days past due' criterion is used as a primary indicator of a SICR. Where a SICR is no longer observed, the instrument transitions back to stage 1.

The Group has elected to apply the simplified approach for receivables from policyholders and other receivables that are allocated to 'Stage 2' unless individually impaired. Financial assets that have become credit-impaired are allocated to stage 3 based on similar principles as are applied under IAS 39 to determine whether credit loss has been incurred.

The tables 24.4a and 24.4b show the fair value and the carrying amount (before adjusting for any impairment in case of financial assets measured at amortized cost) of financial assets whose contractual terms give rise to cash flows that are SPPI, by impairment stages:

Table 244a

Financial assets (SPPI) by stages – current period

Table 24.4a								
in USD millions,		Stage 1		Stage 2		Stage 3		Total
as of December 31, 2022		Carrying		Carrying		Carrying		Carrying
	Fair value	value						
Available-for-sale								
debt securities	88,825	88,825	383	383	28	28	89,236	89,236
Held-to-maturity								
debt securities	2,911	2,825	_	_	_	_	2,911	2,825
Mortgage loans	5,071	5,469	23	23	9	14	5,103	5,507
Other loans ¹	2,700	2,715	32	32	_	_	2,732	2,747
Receivables	4,271	3,916	11,043	11,604	26	135	15,341	15,655
Total financial assets	103,778	103,751	11,481	12,042	63	177	115,323	115,970

¹ Do not include policyholder loans, which will come under IFRS 17 and are therefore not applicable for IFRS 9, of USD 700 million and USD 635 million for fair value and carrying value, respectively.

Table 24.4b

Financial assets (SPPI) by stages – prior period

	Stage 1		Stage 2		Stage 3		Total
	Carrying		Carrying		Carrying		Carrying
Fair value	value	Fair value	value	Fair value	value	Fair value	value
127,179	127,179	418	418	26	26	127,622	127,622
2,358	1,897	_	_	_	_	2,358	1,897
6,338	6,079	19	17	15	18	6,371	6,114
7,389	6,282	67	66	_	_	7,456	6,348
3,195	3,255	10,150	10,283	17	124	13,362	13,662
146,458	144,692	10,654	10,784	58	168	157,170	155,643
	127,179 2,358 6,338 7,389 3,195	Carrying value 127,179 127,179 2,358 1,897 6,338 6,079 7,389 6,282 3,195 3,255	Carrying Fair value Value Fair value 127,179 127,179 418 2,358 1,897 - 6,338 6,079 19 7,389 6,282 67 3,195 3,255 10,150	Fair value Carrying value Carrying value 127,179 127,179 418 418 2,358 1,897 - - 6,338 6,079 19 17 7,389 6,282 67 66 3,195 3,255 10,150 10,283	Fair value Carrying value Carrying value Carrying value Fair value 127,179 127,179 418 418 26 2,358 1,897 - - - - 6,338 6,079 19 17 15 7,389 6,282 67 66 - 3,195 3,255 10,150 10,283 17	Fair value Carrying va	Fair value Carrying value Carrying value Carrying value Carrying value Carrying value Carrying value Fair value<

¹ Do not include policyholder loans, which will come under IFRS 17 and are therefore not applicable for IFRS 9, of USD 794 million and USD 654 million for fair value and carrying value respectively.

25. Related-party transactions

In the normal course of business, the Group enters into various transactions with related parties. Parties are considered to be related if one party has the ability to control or exercise significant influence over the other party in making financial or operational decisions, or one other party controls both. Related parties of the Group include, among others, subsidiaries, associates, joint ventures, key management personnel, and the post-employment benefit plans (see note 20). Transactions between the Group and its subsidiaries are eliminated on consolidation, and they are not disclosed in the consolidated financial statements. A list of the Group's significant subsidiaries is shown in note 28. The transactions of the Group concluded with its associates and with its joint ventures are not considered material to the Group, either individually or in aggregate.

Table 25 summarizes related-party transactions with key management personnel reflected in the consolidated financial statements. Key management personnel includes members of the Board of Directors of Zurich Insurance Group Ltd and Zurich Insurance Company Ltd and members of the Executive Committee.

Table 25

Related party transactions – key personnel

Table 25		
in USD millions, for the years ended December 31	2022	2021
Remuneration of key personnel of the Group		
Cash compensation, current benefits and fees	39	33
Post-employment benefits	_	4
Share-based compensation	43	33
Other remuneration	5	4
Total remuneration of key personnel	87	74

As of December 31, 2022, and 2021, there were no loans, advances or credits outstanding from members of the Executive Committee. Outstanding loans and guarantees granted to members of the Board of Directors amounted to nil for the years ended December 31, 2022 and 2021. The terms 'members of the Board of Directors' and 'members of the Executive Committee' in this context include the individual as well as members of their respective households. The figures in table 25 include the fees paid to members of the Board of Directors of Zurich Insurance Group Ltd and Zurich Insurance Company Ltd, which were USD 6 million and USD 6 million for the years ended December 31, 2022 and 2021, respectively.

The information required by articles 14–16 of the Swiss Ordinance Against Excessive Compensation, which prevails over article 663b^{bis} of the Swiss Code of Obligations, is disclosed and audited in the Remuneration report.

The cash compensation, current benefits and fees are short term in nature.

26. Relationship with the Farmers Exchanges

Farmers Group, Inc. and its subsidiaries (FGI) provide certain non-claims services to the Farmers Exchanges as their attorneys-in-fact, and also provide certain ancillary services to the Farmers Exchanges. Farmers Group Inc. is a wholly owned subsidiary of the Group. Attorney-in-fact services primarily include risk selection, preparation and mailing of policy documents and invoices, premium collection, management of the investment portfolios and certain other administrative and managerial functions. Fees for these services are primarily determined as a percentage of gross premiums earned by the Farmers Exchanges. Ancillary services primarily include information technology, brand advertising and certain distribution related services that are not covered under the attorney-in-fact contracts for which FGI acts as a principal in arranging for those services to the Exchanges. The finances and operations of the Farmers Exchanges are governed by independent Boards of Governors. In addition, the Group has the following relationships with the Farmers Exchanges.

a) Surplus notes issued by the Farmers Exchanges

As of December 31, 2022 and 2021, FGI and its subsidiary held the following surplus note issued by the Farmers Exchanges.

Table 26.1

Surplus note

in USD millions, as of December 31	2022	2021
3.758% surplus note, due December 2027	_	100
Total	_	100

The USD 100 million of 10-year, no call five-year note at a 3.758 percent rate that the Farmers Exchanges issued to Farmers New World Life Insurance Company was redeemed in December 2022. The repayment of principal and payment of interest was approved by the appropriate state insurance authorities.

b) Quota share reinsurance treaty with the Farmers Exchanges

Farmers Reinsurance Company (Farmers Re Co), a wholly owned subsidiary of FGI, assumes risk through a quota share reinsurance treaty, the All Lines Quota Share reinsurance agreement (All Lines agreement) with the Farmers Exchanges. The All Lines agreement may be terminated after 90 days' notice by any of the parties.

The All Lines agreement provides for an assumption of a quota share of the premiums earned and the ultimate net losses sustained in all lines of business written by the Farmers Exchanges.

Table 26.2

Quota share reinsurance treaty

in USD millions, for the years ended December 31	AII I	_ines agreement
	2022¹	20212
Net earned premiums and policy fees	426	192
Insurance benefits and losses, net ^{3,4}	(306)	(145)
Total net technical expenses ⁵	(132)	(62)
Net underwriting result	(12)	(15)

- 1 Effective December 31, 2021, Farmers Re Co assumed a 1.75 percent quota share. Another 29.25 percent was assumed by other third parties. Effective December 31, 2022,
- Farmers Re Co assumed an 8.50 percent quota share of which 6.75 percent was retroceded to Zurich Global, Ltd. Another 22.50 percent was assumed by other third parties.

 From January 1, 2021, through March 31, 2021, Farmers Re Co assumed a 0.25 percent quota share. Another 25.75 percent was assumed by other third parties.

 Effective April 1, 2021, Farmers Re Co assumed a 1.0 percent quota share. Another 32.00 percent was assumed by other third parties.

 Effective April 1, 2021, Farmers Re Co assumed a 1.0 percent quota share. Another 32.00 percent was assumed by other third parties. Effective December 31, 2021,
- Farmers Re Co assumed a 1.75 percent quota share. Another 29.25 percent was assumed by other third parties.

 3 Under the All Lines agreement, Farmers Re Co catastrophe losses are subject to a maximum percentage of net earned premiums for each year. At December 31, 2022, catastrophe losses were limited to 7.88 percent of net earned premiums, or USD 34 million. At December 31, 2021, catastrophe losses were limited to 6.75 percent of net earned premiums, or USD 13 million.
- 4 From 2012 to 2018, Zurich Insurance Company Ltd (ZIC) participated in the All Lines agreement. The insurance losses include prior-year loss development assumed by ZIC of a favorable USD 9 million and an unfavorable USD 9 million, for the years 2022 and 2021, respectively.

 5 During 2022, Farmers Re Co incurred 26.7 percent of premiums for ceding commissions, 6.24 percent of premiums for unallocated loss adjustment expenses and 4.2 percent of
- 5 During 2022, Farmers Re Co incurred 26.7 percent of premiums for ceding commissions, 6.24 percent of premiums for unallocated loss adjustment expenses and 4.2 percent of premiums for other expenses. During 2021, ceding commissions were 26.7 percent of premiums, the unallocated loss adjustment expenses were 8.1 percent of premiums, and the other expenses were 5.3 percent of premiums.

c) Farmers management fees and other related revenues

Farmers Group, Inc. and its subsidiaries (FGI), wholly owned subsidiaries of the Group, are the appointed attorneys-infact of the Farmers Exchanges, which are not owned by FGI. As the attorney-in-fact, FGI is permitted by policyholders of the Farmers Exchanges to receive a management fee of up to 20 percent (up to 25 percent in the case of the Fire Insurance Exchange) of the gross premiums earned by the Farmers Exchanges. This management fee, the primary source of revenue for FGI, has an agreed upon margin cap of 7 percent which is derived from FGI gross management result divided by the gross premium earned by the Farmers Exchanges. The expected revenues and expenses are assessed monthly to determine if expected revenues will be in excess of the cap, in which case the revenue is reduced on a pro-rata basis to ensure that no revenue is recognized for the amounts exceeding the cap. For 2021 only, FGI and the Farmers Exchanges agreed to calculate the margin cap based on results excluding Farmers Workplace Solutions (FWS). In addition, FGI revenue includes reimbursement of certain ancillary service costs incurred by FGI on behalf of primarily the Farmers Exchanges that are not covered under the attorney-in-fact contracts. The amounts incurred for these services are reimbursed to FGI at cost in accordance with allocations that are subject to approval by the Farmers Exchanges Boards of Governors.

FGI has historically charged a lower management fee than the amount allowed by policyholders. The range of fees has varied by line of business over time and from year to year. The gross earned premiums of the Farmers Exchanges were USD 25.8 billion and USD 23.7 billion for the years ended December 31, 2022 and 2021, respectively.

Table 26.3

Farmers Management Services

in USD millions, for the years ended December 31	2022	2021	Change
Management fees and other related revenues	4,490	4,265	5%
Management fees ¹	3,425	3,141	
Revenues for ancillary services ²	968	1,019	
Membership fees	55	59	
Other revenues	42	46	
Management and other related expenses	2,777	2,697	3%
Expenses for ancillary services ²	968	1,019	
Management and other expenses ³	1,809	1,678	
Gross management result	1,713	1,568	9%
Managed gross earned premium margin	6.6%	6.6%	0.0 pts

- 1 Increase in 2022 fees due to FWS acquisition in April 2021 and favorable net year over year margin cap adjustment
- 2 Decrease in revenues and expenses for ancillary services primarily due to lower advertising and distribution related services 3 Increase in operating expenses largely due to FWS acquisition in April 2021.

27. Segment information

The Group pursues a customer-centric strategy, where the Property & Casualty (P&C) and Life businesses are managed on a regional basis. The Group's reportable segments have been identified on the basis of the businesses operated by the Group and how these are strategically managed to offer different products and services to specific customer groups. The Group has identified 13 reportable segments in accordance with IFRS 8 'Operating Segments' and segment information is presented accordingly as follows:

- Property & Casualty regions
- Life regions
- Farmers
- Group Functions and Operations
- Non-Core Businesses

The Group's reportable segments comprise the following:

Property & Casualty and Life regions

- Europe, Middle East & Africa
- North America
- Asia Pacific
- Latin America
- Group Reinsurance

Property & Casualty regions provide a variety of motor, home and commercial products and services for individuals as well as small and large businesses on both a local and global basis. Products are sold through multiple distribution channels including agents, brokers and bank distribution.

Life regions provide a comprehensive range of life and health insurance products on both an individual and a group basis, including annuities, endowment and term insurance, unit-linked and investment-oriented products, as well as full private health, supplemental health and long-term care insurance. In addition to the agent distribution channel, certain of these products are offered via bank distribution channels.

Farmers, through Farmers Group, Inc. and its subsidiaries (FGI), provides certain non-claims services and ancillary services to the Farmers Exchanges, which are owned by their policyholders. This segment also includes all reinsurance assumed from the Farmers Exchanges by the Group. Farmers Exchanges are prominent writers of personal and small commercial lines of business in the U.S. In addition, this segment includes the activities of Farmers Life, a writer of individual life insurance business in the U.S.

Group Functions and Operations comprise the Group's Holding and Financing, Headquarters and the new digital ventures of Zurich Global Ventures. Certain alternative investment positions not allocated to business operating segments are included within Holding and Financing. In addition, this segment includes operational technical governance activities relating to technology, underwriting, claims, actuarial and pricing.

Non-Core Businesses include insurance and reinsurance businesses that the Group does not consider core to its operations and that are therefore mostly managed to achieve a beneficial run-off. Non-Core Businesses are mainly situated in the U.S., Bermuda, and in Europe.

Aggregations and additional information

Regional Property & Casualty and Life results are further aggregated to show a total Property & Casualty and total Life business view.

- Property & Casualty total
- Life total

For additional informational purposes, the Group also discloses income statement information for

- Property & Casualty Commercial Insurance
- Property & Casualty Retail and SME

Business operating profit

The segment information includes the Group's internal performance measure, business operating profit (BOP). This measure is the basis on which the Group manages all of its business units. It indicates the underlying performance of the Group's business units, after non-controlling interests, by eliminating the impact of financial market volatility and other non-operational variables. BOP reflects adjustments for shareholders' taxes, net capital gains/(losses) and impairments on investments (except for certain non-insurance operations included in Non-Core Businesses, investments in hedge funds as at fair value through profit or loss, certain securities held for specific economic hedging purposes and policyholders' share of investment results for the life businesses) and non-operational foreign exchange movements. Significant items arising from special circumstances, including restructuring charges, legal matters or large one-off regulatory projects outside the ordinary course of business, gains and losses on divestment of businesses, certain business combination integration costs and impairments of goodwill are also excluded from BOP.

Table 27.1

Property & Casualty – Overview by segment

in USD millions, for the years ended December 31 Revenues Direct written premiums	2022 15,406	2021	2022	2021
Direct written premiums	· · · · · · · · · · · · · · · · · · ·			
	· · · · · · · · · · · · · · · · · · ·			
		15,526	20,033	17,299
Assumed written premiums	2,400	2,319	1,001	933
Gross written premiums and policy fees	17,806	17,845	21,034	18,232
Less premiums ceded to reinsurers	(3,581)	(3,549)	(7,347)	(6,302)
Net written premiums and policy fees	14,225	14,296	13,687	11,930
Net change in reserves for unearned premiums	(558)	(578)	(730)	(685)
Net earned premiums and policy fees	13,668	13,718	12,957	11,246
Net investment income on Group investments	534	524	929	888
Net capital gains/(losses) and impairments on				
Group investments	(9)	7	(33)	35
Net investment result on Group investments	525	531	896	923
Other income	506	486	173	205
Total BOP revenues	14,698	14,735	14,025	12,374
Benefits, losses and expenses				
Insurance benefits and losses, net	9,149	9,363	8,253	7,192
Policyholder dividends and participation in profits, net	9	9	7	12
Underwriting and policy acquisition costs, net	2,757	2,788	3,137	2,825
Administrative and other operating expense				
(excl. depreciation/amortization)	1,342	1,429	579	482
Interest credited to policyholders and other interest	87	174	46	60
Restructuring costs and other items not included in BOP	(54)	(54)	(97)	(15)
Total BOP benefits, losses and expenses				
(before interest, depreciation and amortization)	13,290	13,709	11,925	10,555
Business operating profit				
(before interest, depreciation and amortization)	1,409	1,026	2,101	1,819
Depreciation and impairments of property and equipment	100	111	51	61
Amortization and impairments of intangible assets	72	69	54	53
Interest expense on debt	14	4	4	
Business operating profit before non-controlling interests	1,223	842	1,991	1,706
Non-controlling interests	18	19	-	
Business operating profit	1,204	822	1,991	1,706

Total		Eliminations		Group Reinsurance		atin America	L	Asia Pacific		
2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	
38,314	41,423	_	_		_	2,499	2,767	2,989	3,217	
1,809	1,912	(2,462)	(2,564)	696	749	89	77	233	248	
40,123	43,335	(2,462)	(2,564)	696	749	2,589	2,844	3,223	3,465	
(9,244)	(10,252)	2,462	2,564	(580)	(640)	(637)	(622)	(638)	(625)	
30,879	33,083		_	117	109	1,951	2,222	2,585	2,840	
(1,418)	(1,650)	_	_	(17)	(14)	(72)	(182)	(67)	(166)	
29,461	31,433	_	_	100	95	1,879	2,040	2,519	2,675	
1,688	1,837	-	_	12	17	178	254	86	103	
42	(44)	_	_	_	_	-	_	_	(2)	
1,731	1,793	_	_	12	17	178	254	86	101	
836	847	_	(3)	16	29	46	41	82	101	
32,028	34,074	_	(2)	128	141	2,104	2,335	2,686	2,877	
18,593	20,009	_	_	(88)	225	744	925	1,383	1,457	
23	20	_	_	_	_	1	1	1	3	
6,886	7,244	_	_	(19)	(16)	716	750	577	618	
2,755	2,813	_	_	108	74	312	384	424	434	
279	176	_	_	6	3	36	39	4	2	
(138)	(277)	_	_	_	(4)	(54)	(118)	(15)	(4)	
	, ,					, ,	, ,	, ,		
28,398	29,986	_	_	6	281	1,754	1,981	2,374	2,509	
	-,					, -	,	,-	,	
3,630	4,088	_	(3)	122	(140)	350	354	312	367	
236	204	_	_	1	1	15	16	49	36	
161	184	_	_	_	_	14	32	25	26	
4	27	_	(3)	_	10	_	_	_	1	
3,229	3,674	_	_	121	(151)	322	306	239	305	
108	120	_	_	_	_	85	97	3	5	
				121	(151)	236	209	235	300	

Table 27.2

Life – Overview by segment

Revenues	Europe, Middle 2022	2021		
Revenues			2022	2021
Life insurance deposits	8,557	10,476	691	713
Gross written premiums	5,735	6,948	177	139
Policy fees	1,722	1,573	408	404
Gross written premiums and policy fees	7,457	8,521	585	543
Net earned premiums and policy fees	6,945	7,807	422	418
Net investment income on Group investments	2,021	2,278	33	27
Net capital gains/(losses) and impairments on				
Group investments	(455)	662	(30)	17
Net investment result on Group investments	1,566	2,940	3	44
Net investment income on unit-linked investments	1,017	1,050	_	_
Net capital gains/(losses) and impairments on				
unit-linked investments	(13,399)	11,556	(1,119)	191
Net investment result on unit-linked investments	(12,382)	12,606	(1,119)	191
Other income	364	336	45	33
Total BOP revenues	(3,506)	23,689	(649)	687
Benefits, losses and expenses				
Insurance benefits and losses, net	4,929	6,469	335	325
Policyholder dividends and participation in profits, net	(11,857)	13,380	(1,119)	191
Income tax expense/(benefit) attributable to policyholders	(219)	245	_	_
Underwriting and policy acquisition costs, net	1,045	909	68	42
Administrative and other operating expense				
(excl. depreciation/amortization)	1,033	1,159	51	45
Interest credited to policyholders and other interest	199	228	2	56
Restructuring costs and other items not included in BOP	(33)	(79)	(5)	(3)
Total BOP benefits, losses and expenses				
(before interest, depreciation and amortization)	(4,903)	22,311	(668)	656
Business operating profit				
(before interest, depreciation and amortization)	1,396	1,378	19	31
Depreciation and impairments of property and equipment	23	23	_	_
Amortization and impairments of intangible assets	36	54	_	
Interest expense on debt	2	_	_	_
Business operating profit before non-controlling interests	1,335	1,301	19	31
Non-controlling interests	121	104	_	
Business operating profit	1,214	1,197	19	31

Life includes approximately USD 775 million and USD 1.1 billion of gross written premiums and future life policyholder benefits for certain universal life-type contracts in the Group's Spanish operations for the years ended December 31, 2022 and 2021, respectively.

Total		Eliminations		einsurance	Group F	atin America	L	Asia Pacific		
2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	
14,357	12,923	_	_	-	_	3,023	3,583	145	93	
11,791	10,606	(35)	(31)	35	31	2,236	2,368	2,467	2,325	
2,205	2,360	_	_	-	_	95	89	132	141	
13,995	12,966	(35)	(31)	35	31	2,332	2,458	2,599	2,466	
12,299	11,589	_	_	26	23	2,042	2,219	2,006	1,980	
2,987	2,916	(1)	(1)	_	_	480	659	204	203	
621	(600)	_	_	_	_	4	36	(63)	(150)	
3,608	2,316	(1)	(1)	-	_	484	695	141	53	
1,217	1,129	_	_	_	_	27	33	139	80	
12,693	(12,621)	_	_	-	_	908	2,124	38	(226)	
13,909	(11,491)	_	_	_	_	935	2,157	177	(147)	
486	522	(1)	(1)	-	_	93	83	25	30	
30,301	2,936	(3)	(2)	26	23	3,554	5,153	2,349	1,917	
8,863	7,331	-	_	4	9	978	983	1,087	1,074	
14,660	(10,923)	_	_	-	_	946	2,158	143	(104)	
275	(239)	_	_	-	_	_	12	30	(33)	
2,129	2,371	(1)	(1)	7	3	999	1,108	174	148	
2,054	1,910	_	_	_	_	250	299	600	527	
315	239	_	_	_	_	29	32	1	7	
(173)	(163)	-	-	-	_	(33)	(69)	(58)	(56)	
28,123	526	(1)	(1)	10	12	3,169	4,523	1,977	1,564	
2,178	2,409	(1)	(1)	15	11	385	631	371	352	
42	39	_	-	-	-	11	8	8	7	
71	52	_	_	-	_	9	8	8	8	
10	8	(1)	(1)	-	_	_	_	11	7	
2,055	2,311	_	_	15	11	365	615	344	331	
243	348	_	_	-	-	143	227	(4)	_	
1,812	1,963	_	_	15	11	222	388	347	331	

Table 27.3

Business operating profit by business

in USD millions, for the years ended December 31	D			Life	
_	2022	ty & Casualty 2021	2022	2021	
Revenues	2022	2021	2022	2021	
Direct written premiums	41,423	38,314	10,581	11,770	
Assumed written premiums	1,912	1,809	25	20	
Gross Written Premiums	43,335	40,123	10,606	11,791	
Policy fees	-	-	2,360	2,205	
Gross written premiums and policy fees	43,335	40,123	12,966	13,995	
Less premiums ceded to reinsurers	(10,252)	(9,244)	(1,212)	(1,507)	
Net written premiums and policy fees	33,083	30,879	11,755	12,489	
Net change in reserves for unearned premiums	(1,650)	(1,418)	(166)	(190)	
Net earned premiums and policy fees	31,433	29,461	11,589	12,299	
Farmers management fees and other related revenues	-	_	-		
Net investment income on Group investments	1,837	1,688	2,916	2,987	
Net capital gains/(losses) and impairments on	1,007	1,000	2,010	2,007	
Group investments	(44)	42	(600)	621	
Net investment result on Group investments	1,793	1.731	2,316	3.608	
Net investment result on unit-linked investments	-	-	(11,491)	13,909	
Other income	847	836	522	486	
Total BOP revenues	34.074	32.028	2,936	30,301	
of which: inter-business revenues	(78)	4	94	29	
Benefits, losses and expenses	(: -/				
Losses and loss adjustment expenses, net	20.011	18.596	_	_	
Life insurance death and other benefits, net	(2)	(2)	7,331	8,863	
Insurance benefits and losses, net	20,009	18,593	7,331	8,863	
Policyholder dividends and participation in profits, net	20	23	(10,923)	14,660	
Income tax expense/(benefit) attributable to policyholders	_	_	(239)	275	
Underwriting and policy acquisition costs, net	7,244	6,886	2,371	2,129	
Administrative and other operating expense	,	-,	,-	, -	
(excl. depreciation/amortization)	2,813	2,755	1,910	2,054	
Interest credited to policyholders and other interest	176	279	239	315	
Restructuring costs and other items not included in BOP	(277)	(138)	(163)	(173)	
Total BOP benefits, losses and expenses					
(before interest, depreciation and amortization)	29,986	28,398	526	28,123	
Business operating profit		·			
(before interest, depreciation and amortization)	4,088	3,630	2,409	2,178	
Depreciation and impairments of property and equipment	204	236	39	42	
Amortization and impairments of intangible assets	184	161	52	71	
Interest expense on debt	27	4	8	10	
Business operating profit before non-controlling interests	3,674	3,229	2,311	2,055	
Non-controlling interests	120	108	348	243	
Business operating profit	3,554	3,121	1,963	1,812	

Life includes approximately USD 775 million and USD 1.1 billion of gross written premiums and future life policyholder benefits for certain universal life-type contracts in the Group's Spanish operations for the years ended December 31, 2022 and 2021, respectively.

				Non-Core		p Functions	Grou			
Total		Eliminations		Businesses		Operations	and	Farmers		
2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	
	F0.700			0.4	07	0		000	004	
50,759	52,702	- (4.05)	-	34	37	3	-	638	661	
2,426	3,416	(165)	(175)	52	50	357	422	353	1,182	
53,185	56,118	(165)	(175)	86	87	359	422	992	1,843	
2,592	2,730			27	23		_	359	347	
55,777	58,848	(165)	(175)	113	110	359	422	1,351	2,190	
(10,970)	(11,747)	165	175	(16)	(13)	(194)	(267)	(175)	(179)	
44,806	47,101	_		98	97	165	155	1,176	2,011	
(1,776)	(2,569)	_	_	4	1	(11)	2	(161)	(756)	
43,031	44,532	-	_	102	97	154	157	1,015	1,255	
4,265	4,490	_	_		_	_	_	4,265	4,490	
5,047	5,084	(90)	(82)	131	113	155	124	176	177	
491	(1,113)	_	_	(177)	(461)	_	_	5	(9)	
5,538	3,971	(90)	(82)	(46)	(348)	155	124	180	168	
14,388	(12,405)	(50)	(02)	276	(661)	-	-	203	(252)	
1,283	1,286	(266)	(369)	31	79	123	154	73	53	
68,504	41,876	(356)	(451)	362	(833)	432	435	5,736	5,714	
00,504	41,070	356	451	(6)	(10)	(377)	(446)	(7)	(11)	
		330	401	(0)	(10)	(377)	(440)	(7)	(土土)	
18,800	20,423	_	_	57	104	2	2	145	307	
9,484	7,780	_	_	(71)	(180)	105	110	590	521	
28,284	28,204	_	_	(14)	(76)	107	112	735	828	
15,195	(11,791)	_	_	287	(655)	12	8	213	(242)	
275	(239)	_	_		-		_	_	<u> </u>	
9,213	9,873	(7)	(6)	5	3	25	29	175	233	
- 0,220	0,070	(,,	(0)					2.0	200	
8,047	7,935	5	3	59	55	471	433	2,702	2,720	
591	403	(262)	(266)	25	16	124	139	111	99	
(411)	(591)		_	_	_	(70)	(95)	(29)	(56)	
	, ,						, ,	, ,	, ,	
61,195	33,793	(265)	(269)	362	(657)	669	625	3,908	3,582	
		4				4				
7,310	8,083	(91)	(182)	-	(176)	(237)	(190)	1,829	2,133	
351	315		_		_	14	17	59	57	
396	415	_				23	16	141	163	
469	434	(91)	(182)	2	19	532	559	12	4	
6,094	6,918	_	_	(1)	(195)	(806)	(781)	1,617	1,909	
352	467			-	-	1	(1)	-		
5,742	6,451		_	(1)	(195)	(806)	(780)	1,617	1,909	

Table 27.4

Reconciliation of BOP to net income after income taxes

in USD millions, for the years ended December 31					
	Property & Casualty			Life	
	2022	2021	2022	2021	
Business operating profit	3,554	3,121	1,963	1,812	
Revenues/(expenses) not included in BOP:					
Net capital gains/(losses) on investments and impairments,					
net of policyholder allocation	31	1,440	213	167	
Net gains/(losses) on divestment of businesses ¹	(16)	-	(273)	(151)	
Restructuring costs	(61)	(59)	(34)	(33)	
Impairments of goodwill	_	(5)	_	_	
Other adjustments ²	(216)	(75)	(129)	(140)	
Add back:					
Business operating profit attributable to					
non-controlling interests	120	108	348	243	
Net income before shareholders' taxes	3,412	4,531	2,088	1,898	
Income tax expense/(benefit) attributable to policyholders	_	-	(239)	275	
Net income before income taxes	3,412	4,531	1,849	2,173	
Income tax (expense)/benefit					
attributable to policyholders					
attributable to shareholders					
Net income after taxes					
attributable to non-controlling interests					
attributable to shareholders					

¹ In 2022, Property & Casualty included losses of USD 30 million related to the sale of the Joint Stock Company Insurance Company (Zurich Russia) (see note 5) offset by gains of USD 13 million related to a regional divestment. In 2022, Life included losses of USD 237 million as Zurich Investments Life S.p.A. sold part of its life and pension back book and transaction costs of USD 34 million as Zurich Deutscher Herold Lebensversicherung Aktiengeselsleshaft agreed to sell its legacy traditional life insurance back book (see note 5). In 2021, Life included losses of USD 144 million as Zurich Investments Life S.p.A. agreed to sell its life and pension back book, USD 9 million as Zurich International Life Limited entered into an agreement to sell an insurance portfolio and Group Functions included losses of USD 33 million related of the sale of Bright Box.
2 Other adjustments in 2022 and 2021 include charges related to the implementation of IFRS 17 and business combination integration costs.

		Gro	up Functions		Non-Core		
	Farmers		d Operations		Businesses		Total
2022	2021	2022	2021	2022	2021	2022	2021
1,909	1,617	(780)	(806)	(195)	(1)	6,451	5,742
1	18	(76)	(58)	(8)	(19)	162	1,547
_	_	1	(33)	_	_	(288)	(185)
(7)	(4)	(9)	(10)	_	_	(111)	(106)
_	_	_	_	_	_	_	(5)
(49)	(26)	(86)	(60)	_	-	(480)	(301)
_	-	(1)	1	_	-	467	352
1,855	1,605	(951)	(967)	(202)	(21)	6,201	7,046
_	-	_	-	_	-	(239)	275
1,855	1,605	(951)	(967)	(202)	(21)	5,962	7,321
						(1,040)	(1,895)
						239	(275)
						(1,279)	(1,621)
						4,923	5,425
						319	223
						4,603	5,202

Table 27.5

Assets and liabilities by business

			Life
2022	2021	2022	2021
7040	0.606	4160	2.001
			3,821
			105,203
· · · · · · · · · · · · · · · · · · ·			8,267
			76,392
			8,845
			4,643 7,034
· · · · · · · · · · · · · · · · · · ·			7,034
5			136,920
64.462			242,123
· · · · · · · · · · · · · · · · · · ·			2,928
		•	12,201
	0,309		441
	1 000		
			1,277
			1,889
			16,908
119,102	120,939	234,704	281,590
		E7.066	60.470
96 60E	94.900		68,472
		120,424	168,932
		_	
· · · · · · · · · · · · · · · · · · ·		4E 064	60.222
			68,333
44			22,031
2,000			76,973
· · · · · · · · · · · · · · · · · · ·			1,595
			575
			650
			24,183
100,656	100,221	219,224	262,811
050	405	474	24
358	465	4/1	94
	Prope 2022 7,343 64,463 7,722 45,944 5,275 886 4,631 5 - 64,463 18,350 61 6,759 - 1,760 1,686 18,760 119,182 - 86,605 62,374 21,165 22 44 - 3,000 954 868 12,230 100,656	7,343 8,626 64,463 75,314 7,722 9,038 45,944 54,634 5,275 4,973 886 930 4,631 5,735 5 5 64,463 75,314 18,350 17,846 61 56 6,759 6,359 1,760 1,820 1,686 1,679 18,760 17,239 119,182 128,939 86,605 84,892 62,374 62,225 21,165 19,707 22 26 44 44 3,000 2,890 954 880 868 975 12,230 13,474 100,656 100,221	7,343 8,626 4,163 64,463 75,314 66,053 7,722 9,038 4,379 45,944 54,634 44,919 5,275 4,973 9,257 886 930 4,093 4,631 5,735 3,383 5 5 21 - - 118,530 64,463 75,314 184,584 18,350 17,846 2,638 61 56 4 6,759 6,359 11,677 - - 431 1,760 1,820 1,413 1,686 1,679 1,881 18,760 17,239 27,973 119,182 128,939 234,764 - - 57,066 86,605 84,892 126,424 62,374 62,225 - 21,165 19,707 - 22 26 45,264 44 44

¹ As of December 31, 2022, the Group had USD 22.1 billion of assets held for sale based on agreements signed to sell portfolios of Zurich Deutscher Herold Lebensversicherung Aktiengesellschaft and Zurich Insurance plc (Spain Medical Malpractice and UK Employers' Liability portfolios) (see note 5). In addition, assets held for sale include land and buildings formerly classified as investment property and held for own use amounted to USD 39 million. In 2021, the Group had USD 11.6 billion of assets held for sale portfolios of Zurich International Life Limited, Jurich Investments Life S.p.A. and Zurich Insurance plc (Spain Medical Malpractice and UK Employers' Liability portfolios) (see note 5). In addition, assets held for sale include land and buildings formerly classified as investment property and held for own use amounted to USD 50 million.

				Non-Core		oup Functions	Gre		
Tota		Eliminations		Businesses		nd Operations	aı	Farmers	
2021	2022	2021	2022	2021	2022	2021	2022	2021	2022
8,698	7,560	(10,559)	(8,190)	796	376	5,191	2,929	823	939
190,959	140,625	(11,935)	(8,256)	5,222	4.504	11,300	8,919	5,855	4,943
18,578	13,130	-	-	97	72	1,105	609	71	348
145.084	103,664	(317)	_	4.338	3,911	5.825	5,266	4.212	3,624
14.070	14.798	_	_	94	92	_	_	159	174
6,10	5,497	_	_	_	_	_	_	533	518
7.05	3,444	(11,618)	(8,256)	694	375	4,329	3,033	880	279
68	92	_	_	_	55	41	11	_	_
142,470	121,989	_	_	4,265	2,423	_	_	1,286	1,035
333,429	262,614	(11,935)	(8,256)	9,487	6,927	11,300	8,919	7,140	5,978
25,680	25,667	(212)	(189)	2,937	2,747	189	212	1,992	1,909
444	960	(68)	(238)	220	209	135	310	98	614
20,446	20,711	1	_	_	_	_	_	1,885	2,275
44:	431	_	_	_	_	_	_		
4,34	4,420	_	_	_	_	9	10	1,237	1,237
4,48	4,445	-	_	_	_	37	43	879	835
37,86	50,974	(3,708)	(3,293)	2,571	2,111	1,374	2,062	3,477	3,361
435,820	377,782	(26,481)	(20,166)	16,011	12,370	18,235	14,484	17,531	17,148
	•				•	•	•	•	•
68,85	57,456	-	_	137	123	_	_	247	267
272,70	229,755	(326)	(269)	10,882	8,012	410	476	7,915	8,507
63,57	63,560	(32)	(28)	1,196	976	1	1	186	238
19,909	22,124	(4)	1	22	20	1	_	182	938
73,97	50,275	(176)	(159)	3,061	2,372	374	388	2,359	2,388
28,05	16,849	_	_	2,058	2,004	5	5	3,914	3,919
82,52	72,078	_	_	4,265	2,423	_	_	1,286	1,035
4,668	4,869	(114)	(84)	280	217	29	82	(12)	(10)
5,32	5,071	(8,162)	(5,799)	279	281	11,754	9,201	_	_
9,78	8,899	(3,655)	(2,346)	_	_	10,755	9,800	1,058	_
39,98	48,687	(14,339)	(11,750)	4,038	3,377	10,392	7,897	2,238	2,214
396,65	349,868	(26,482)	(20,165)	15,336	11,792	33,311	27,373	11,458	10,988
	-	• • • • • • • • • • • • • • • • • • • •		-	-	-	-	-	
37,88	26,634								
1,289	1,279								
39,170	27,914								
435,826	377,782								
757	986	_	_	_	_	54	35	144	122

Table 27.6

Property & Casualty – Commercial and Retail Insurance overview¹

14510 27.0				
in USD millions, for the year ended December 31	Commer		Retail and SME	
	2022	2021	2022	2021
Gross written premiums and policy fees	31,218	28,184	13,956	13,724
Net earned premiums and policy fees	18,756	16,839	12,583	12,523
Insurance benefits and losses, net	12,120	11,057	7,664	7,624
Policyholder dividends and participation in profits, net	10	13	11	10
Total net technical expenses	5,139	4,742	4,495	4,380
Net underwriting result	1,488	1,027	412	509
Net investment income	1,267	1,186	552	491
Net capital gains/(losses) and impairments on investments	(35)	39	(8)	4
Net non-technical result (excl. items not included in BOP)	130	(12)	19	(136)
Business operating profit before non-controlling interests	2,849	2,240	975	868
Non-controlling interest	_	-	120	108
Business operating profit	2,849	2,239	855	761

Commercial and Retail Insurance overview exclude Group Reinsurance.

Table 27.7

Property & Casualty – in Revenues and non-current assets by region

in USD millions		Gross written premiums and policy Property, equipment					ipment and	
-				fee	s from externa		intan	gible assets
						of which		
				of which	Reta	il and Other		
-		Total		ial Insurance		Insurance		
	-	ears ended		years ended	-	ears ended		
-		ecember 31		December 31		ecember 31		ecember 31
	2022	2021	2022	2021	2022	2021	2022	2021
Europe	010	005					100	100
Austria	613	665					100	108
France	382	367					14	16
Germany	2,765	2,944					585	645
Italy	1,546	1,689					23	28_
Ireland	646	654					68	69
Portugal	356	387					14	11
Spain	1,442	1,516					279	299
Switzerland	3,831	3,830					763	805
United Kingdom	3,979	3,653					99	127
Rest of Europe	905	863					65	86
Middle East & Africa								
Middle East	164	137					_	_
Europe, Middle East & Africa	16,629	16,704	6,889	6,751	9,741	9,954	2,011	2,195
North America								
Canada	1,215	1,083					25	19
United States	19,285	16,641					1,098	1,076
North America	20,500	17,724	20,500	17,724	_	_	1,123	1,095
Asia Pacific								
Australia	1,141	885					766	855
Hong Kong	330	312					29	32
Japan	873	999					14	19
Malaysia	401	385					53	56
Rest of Asia Pacific	599	538					244	273
Asia Pacific	3,343	3,119	1,033	1,005	2,310	2,113	1,106	1,234
Latin America	,	,	,	· · · · · · · · · · · · · · · · · · ·	,	,		,
Argentina	583	529					253	220
Brazil	1,011	869					321	302
Chile	371	392					15	13
Mexico	658	583					138	130
Rest of Latin America	232	193					44	48
Latin America	2,855	2,567	951	910	1,904	1,657	770	712
Group Reinsurance	_,500	_,007	301	010	2,001	_,007	. , 0	7 1 2
Group Reinsurance	7	8		_	7	8	1	2
Total	43,334	40,122	29,372	26,390	13,962	13,732	5,011	5,239
	10,00	10,222	20,072	_0,000		10,702	0,011	0,200

Table 27.8

Life -Revenues and non-current assets by region

in USD millions	Gross writte	n premiums					
	and police	cy fees from			Property, equi	ipment and	
	externa	l customers	Life insuran	ce deposits	intang	jible assets	
	for the y	ears ended	for the y	ears ended			
	D	ecember 31	D	ecember 31	as of De	December 31	
	2022	2021	2022	2021	2022	2021	
Europe, Middle East & Africa							
Austria	88	110	58	63	6	6	
Germany	1,484	1,675	1,529	1,688	40	76	
Italy	738	973	1,040	1,887	384	19	
Ireland ¹	589	606	4,143	4,595	88	95	
Spain	1,323	1,684	36	49	977	1,053	
Switzerland	1,023	1,130	352	331	3	3	
United Kingdom	1,686	1,825	(176)	(66)	134	142	
Zurich International ²	499	491	1,334	1,615	26	38	
Rest of Europe, Middle East & Africa	27	27	240	314	1	1	
Europe, Middle East & Africa	7,457	8,521	8,557	10,476	1,660	1,434	
North America							
United States	585	543	691	713	_	_	
North America	585	543	691	713	_	_	
Asia Pacific							
Australia	1,709	1,765	12	59	1,185	1,267	
Hong Kong	52	53	27	17	_	_	
Indonesia	64	62	_	_	1	1	
Japan	408	479	_	_	9	12	
Malaysia	232	240	54	69	76	81	
Asia Pacific	2,466	2,599	93	145	1,271	1,361	
Latin America							
Argentina	154	157	89	100	45	45	
Brazil	1,336	1,276	2,945	2,370	215	213	
Chile	367	396	139	171	284	288	
Mexico	517	443	409	382	85	89	
Uruguay	53	43	_	_	3	1	
Colombia	30	15	_	_	_		
Latin America	2,457	2,331	3,583	3,023	632	636	
Other	, -		,	, -			
International business							
Total	12,965	13,994	12,923	14,357	3,562	3,430	

¹ Includes business written under freedom of services and freedom of establishment in Europe, and the related assets. 2 Includes business written through licenses, mainly in Asia Pacific and Middle East, and the related assets.

28. Interest in subsidiaries

Significant subsidiaries are defined as those subsidiaries which either individually or in aggregate, contribute significantly to gross written premiums, shareholders' equity, total assets or net income attributable to shareholders.

Table 28.1

Significant subsidiaries – non-listed

as of December 31, 2022				Nor	ninal value of share
		Voting	Ownership		capital (in local
	Registered office	rights %	interest %		currency millions)
Australia					
Cover-More Group Limited	Sydney	100	100	AUD	568.8
Zurich Australia Limited	Sydney	100	100	AUD	543.5
Zurich Australian Insurance Limited	Sydney	100	100	AUD	6.6
Zurich Financial Services Australia Limited	Sydney	100	100	AUD	2,983.0
Austria					
Zürich Versicherungs-Aktiengesellschaft	Vienna	99.98	99.98	EUR	9.8
Brazil					
Zurich Santander Brasil Seguros e Previdência S.A. ¹	Sao Paulo	51	51	BRL	2,509.2
Zurich Minas Brasil Seguros S.A.	Belo Horizonte	100	100	BRL	2,272.1
Zurich Resseguradora Brasil S.A.	Sao Paulo	100	100	BRL	124.0
Chile					
Chilena Consolidada Seguros de Vida S.A.	Santiago	99.10	99.10	CLP	191,188.3
Zurich Santander Seguros de Vida Chile S.A. ¹	Santiago	51	51	CLP	21,707.5
Germany					
Deutscher Herold Aktiengesellschaft	Köln	100	100	EUR	18.4
Zürich Beteiligungs-Aktiengesellschaft (Deutschland)	Frankfurt	100	100	EUR	152.9
Zurich Deutscher Herold Lebensversicherung					
Aktiengesellschaft	Köln	100	100	EUR	48.0
Zurich Immobilien (Deutschland) AG & Co. KG	Köln	100	100	EUR	0.001
Indonesia					
PT Zurich Asuransi Indonesia Tbk	Jakarta Selatan	80	80	IDR	3,101,846.0
Ireland					
Zurich Life Assurance plc	Dublin	100	100	EUR	17.5
Zurich Holding Ireland Limited	Dublin	100	100	EUR	0.1
Zurich Insurance plc	Dublin	100	100	EUR	8.2
Italy					
Zurich Investments Life S.p.A.	Milan	100	100	EUR	207.9
Zurich Italy Bank S.p.A.	Milan	100	100	EUR	49.0
Japan					
Zurich Life Insurance Japan Company Ltd	Nakano-ku	100	100	JPN	7,316.3
Luxembourg					
REX-ZDHL S.C.S. SICAV-SIF	Leudelange	100	100	EUR	2,229.8
Malaysia	<u></u>				-
Zurich Life Insurance Malaysia Berhad	Kuala Lumpur	100	100	MYR	579.0
Zurich Holdings Malaysia Berhad	Kuala Lumpur	100	100	MYR	768.4
Mexico					

Table 28.1

Significant subsidiaries non-listed (continued)

					al value of share
		Voting	Ownership	capital (i	in local currency
	Registered office	rights %	interest %		millions)
Spain				FLID	7.0
Bansabadell Pensiones, E.G.F.P, S.A.	Madrid	50	50	EUR	7.8
Bansabadell Seguros Generales, S.A. de					
Seguros y Reaseguros	Madrid	50	50	EUR	10.0
Bansabadell Vida S.A. de Seguros y Reaseguros	Madrid	50	50	EUR	43.9
Zurich Latin America Holding S.L. – Sociedad Unipersonal		100	100	EUR	43.0
Zurich Santander Holding (Spain), S.L. ¹	Boadilla del Monte	51	51	EUR	942.8
Zurich Santander Holding Dos (Spain), S.L. ¹	Madrid	51	51	EUR	441.0
Zurich Santander Insurance America, S.L.	Madrid	51	51	EUR	177.0
Zurich Vida, Compañía de Seguros y Reaseguros, S.A.					
– Sociedad Unipersonal	Madrid	100	100	EUR	56.4
Switzerland					
Zurich Finance Company AG	Zurich	100	100	CHF	0.2
Zurich Insurance Company Ltd	Zurich	100	100	CHF	825.0
Zurich Life Insurance Company Ltd	Zurich	100	100	CHF	60.0
Zürich Rückversicherungs-Gesellschaft AG	Zurich	100	100	CHF	11.7
United Kingdom					
Allied Zurich Holdings Limited	St. Hélier, Jersey	100	100	GBP	597.7
Zurich Assurance Ltd	Swindon, England	100	100	GBP	356.2
Zurich Employment Services Limited	Swindon, England	100	100	GBP	378.9
Zurich Financial Services (UKISA) Limited	Swindon, England	100	100	GBP	1,460.9
Zurich Holdings (UK) Limited	Fareham, England	100	100	GBP	318.3
Zurich International Life Limited	Douglas, Isle of Man	100	100	GBP	123.4
Zurich UK General Services Limited	Fareham, England	100	100	GBP	470.9
United States of America					
Farmers Group, Inc. ²	Carson City, NV	100	100	USD	0.001
Farmers Reinsurance Company ²	Woodland Hills, CA	100	100	USD	5.0
Farmers New World Life Insurance Company ²	Bellevue, WA	100	100	USD	_
Zurich American Insurance Company	New York, NY	100	100	USD	5.0
Zurich American Life Insurance Company	Schaumburg, IL	100	100	USD	2.5
Zurich Holding Company of America, Inc.3	Wilmington, DE	100	100	USD	_
	George Town,				
ZCM Matched Funding Corp.	Cayman Islands	100	100	USD	0.00001
Centre Group Holdings (U.S.) Limited	Wilmington, DE	100	100	USD	0.00000
ZCM (U.S.) Limited	Wilmington, DE	100	100	USD	0.00100
Zurich Capital Markets Inc.	Wilmington, DE	100	100	USD	0.00001
Zurich Structured Finance. Inc.	Wilmington, DE	100	100	USD	0.01200

Zurich Insurance Group Ltd (ZIG) indirectly owns 51 percent.
 The ownership percentages in Farmers Group, Inc. and its fully owned subsidiaries have been calculated based on the participation rights of Zurich Insurance Group in a situation of liquidation, dissolution or winding up of Farmers Group, Inc.
 Shares have no nominal value in accordance with the company's articles of incorporation and local legislation.

Due to the nature of the insurance industry, the Group's business is subject to extensive regulatory supervision, and companies in the Group are subject to numerous legal restrictions and regulations. These restrictions may refer to minimum capital requirements or the ability of the Group's subsidiaries to pay dividends imposed by regulators in the countries in which the subsidiaries operate. These are considered industry norms, generally applicable to insurers who operate in the same markets.

For Zurich Santander Insurance America, S.L. and its subsidiaries, and the Bansabadell insurance entities, certain protective rights exist, which, among others, include liquidation, material sale of assets, transactions affecting the legal ownership structure, dividend distribution and capital increase, distribution channel partnerships and governance, which are not quantifiable.

For details on the Group's capital restrictions, see the capital management section in the risk review, which forms an integral part of the consolidated financial statements.

Table 28.2 shows the summarized financial information for each subsidiary that has non-controlling interests that are material to the Group.

Table 28.2

Non-controlling interests

in USD millions, as of December 31	Zurich Santar	der Insurance			
	America, S.L.				
	and its subsidiaries		Bansabadell insurance entities		
	2022	2021	2022	2021	
Non-controlling interests percentage	49%	49%	50%	50%	
Total Investments	16,105	13,215	8,508	10,979	
Other assets	3,079	2,858	1,553	1,595	
Insurance and investment contract liabilities ¹	17,194	14,331	8,373	10,747	
Other liabilities	936	803	388	426	
Net assets	1,054	940	1,300	1,401	
Non-controlling interests in net assets	516	461	650	700	
Total revenues	3,737	2,372	1,451	1,836	
Net income after taxes	423	270	215	183	
Other comprehensive income	26	(211)	(173)	(123)	
Total comprehensive income	449	59	43	60	
Non-controlling interests in total comprehensive income	220	29	21	30	
Dividends paid to non-controlling interests	171	263	73	68	

¹ Includes reserves for premium refunds, liabilities for investment contracts, deposits received under ceded reinsurance contracts, deferred front-end fees and liabilities for insurance contracts.

29. Events after the balance sheet date

No events after the balance sheet date.

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Report of the statutory auditor



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To the General Meeting of Zurich Insurance Group Ltd, Zurich Zurich, February 8, 2023

Report of the statutory auditor

Report on the audit of the consolidated financial statements



Opinion

We have audited the consolidated financial statements of Zurich Insurance Group Ltd and its subsidiaries (the Group), which comprise the consolidated statement of financial position as of December 31, 2022, the consolidated statement of income, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements (pages 3 to 114 and the audited sections of the risk review on pages 5 to 32) give a true and fair view of the consolidated financial position of the Group as of December 31, 2022, and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRS) and comply with Swiss law.



Basis for opinion

We conducted our audit in accordance with Swiss law, International Standards on Auditing (ISA) 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

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the "Auditor's responsibilities for the audit of the consolidated financial statements" section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the consolidated financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the consolidated financial statements.



2

Valuation of certain Property & Casualty reserves

Area of focus

Out of the total consolidated liabilities, reserves for losses and loss adjustment expenses is a material item of the liabilities for insurance contracts financial statement line and amounted to USD 63,560 million as of December 31, 2022.

As described in the Notes to the consolidated financial statement, reserves for losses and loss adjustment expenses are estimates of future payments for reported and unreported claims losses and related expenses with respect to insured events that have occurred.

Reserving for incurred but not reported claims is a complex process applying actuarial and statistical methods over historical data and patterns requiring the use of informed estimates and judgments. It requires the use of complex formulas and computational tools that may be incorrectly configured, and for which inaccurate or incomplete input data may be used.

This is specifically the case for Property & Casualty lines of business that are considered longer-tail such as worker's compensation, general and professional liability, and other specialty lines where certain longer-term assumptions are required as part of the projection techniques. These projection techniques also consider exposures to the prolonged impacts of the COVID-19 pandemic including uncertainty around claims litigation, timeliness of claims reporting and resultant impact of challenges with supply chains and inflation.

Additionally, reserves for catastrophes events which are usually of less frequency but higher severity, are more difficult to estimate and include expert judgments, specifically for events taking place close to period end.

Accordingly, we have identified this as a key audit matter.

The accounting policies and critical accounting judgments and estimates of the Group about the valuation of the loss and loss adjustment expense reserves are described in Notes 3 and 4 respectively and additional information regarding these reserves is presented in Note 8 to the consolidated financial statements.



3

Our audit response

We assessed and tested the design effectiveness of selected key controls within the actuarial reserve valuation process. These included controls over methods selection, completeness and accuracy of the underlying data, assumption setting and the governance process used by management.

We executed our substantive procedures in relation to these reserves and related changes as included in the consolidated statement of income using the work of our actuarial specialists.

Our procedures included:

- Performance of a country-based risk tiering assessment on all lines of business based on multiple criteria including materiality, tail length and prior year developments.
- Analytical reviews considering separately current accident year loss ratio from prior years developments by significant lines of business.
- Evaluation of the appropriateness of the loss reserve levels for significant catastrophe events.

For selected lines of business, our procedures further included:

- On a sample basis, testing the completeness and accuracy of data utilized by management in estimating the loss reserves by reconciling such amounts and related output to the underlying accounting records and the financial statements as appropriate.
- Performed data-enabled audit procedures and claims data plausibility checks on selected samples to support completeness and accuracy of claims triangles.
- Independent projections of ultimate losses and calculation of a reasonable range for required loss reserves for selected lines of business. We also assessed managements' recorded loss reserves as compared to our independently developed loss reserve range.
- Analysis of actuarial methods and assessment of the reasonableness of the quantitative and qualitative assumptions used within projection techniques by Zurich Insurance actuaries for the valuation of loss reserves on selected lines of business.
- Assessment of current year inflation impacts on reserves and our independent projections.
- Evaluation of the appropriateness of any significant adjustments made by management relating to the Actuarial reserve estimates.

Finally, we assessed the appropriateness of accounting policies used and adequacy of the disclosures in the consolidated financial statements.

Based on audit procedures performed, we did not identify any exceptions with regards to the valuation of property and casualty reserves.



4

Valuation of certain actuarially determined life insurance assets and liabilities

Area of focus

Out of total consolidated assets, life deferred policy acquisition costs ('Life DAC') is a material item of the deferred policy acquisition costs financial statement line and amounted to USD 11,677 million as of December 31, 2022.

Out of total consolidated liabilities, future life policyholder benefit reserves is a material item of the liabilities for insurance contracts financial statement line and amounted to USD 50,275 million as of December 31, 2022.

The valuation of the above mentioned actuarially determined life insurance assets and liabilities is associated with significant uncertainties requiring the use of expert judgment within complex actuarial models relying on subjective assumptions in relation to future events.

The assumptions and data used for calculations of these balances require both economic and non-economic assumptions, including interest rates, investment returns, mortality, morbidity, longevity, persistency, expenses, and the modeled future decisions of the policyholders. In addition, uncertainty triggered by the second order effects of the COVID-19 pandemic requires additional analysis and judgment.

Moreover, because of the long duration of many life insurance products, relatively small changes in key assumptions may have a significant impact on the valuation of the actuarially determined life insurance assets and liabilities. Specifically, the significant increase in interest rates around the globe, and the related impact to policyholder behavior, creates specific risks for insurers to consider.

The valuation of these assets and liabilities requires the use of complex formulas and the construction of models and other computational tools that may be incorrectly designed or configured, and for which inadequate assumptions and/or incomplete or inaccurate input data may be used.

Accordingly, we have identified this as a key audit matter.

The accounting policies and critical accounting judgments and estimates of the Group about the valuation of the actuarially determined life insurance assets and liabilities are described in Notes 3 and 4 respectively and additional information regarding these assets and liabilities is presented respectively in Notes 11 and 8 to the consolidated financial statements.



5

Our audit response

We assessed and tested the design effectiveness of selected key controls within the life insurance asset and liability actuarial valuation process. These included controls over methods selection, completeness and accuracy of the underlying data, assumption setting and the governance process used by management.

We executed our substantive procedures in relation to these balances and related changes as included in the consolidated income statements using the work of our actuarial specialists.

Our procedures included:

- Performance of a country-based risk tiering assessment for selected product based on multiple criteria including materiality, specific product features and complexity, and liability adequacy test (LAT) headroom.
- On a sample basis, reviewing the LAT, and related impact to Life DAC recoverability and sufficiency of the future life policyholder benefit reserves.
- Assessing the consistency of the life actuarial methods and best estimate assumptions used across the Group's significant business units.

For selected products, our procedures further included:

- On a sample basis, testing of the completeness and accuracy of data, including in-force policyholder data and experience studies as utilized by management to value the insurance assets and liabilities by reconciling such amounts and related output to the underlying accounting records and the financial statements.
- On a sample basis, reviewing actuarial models used in the determination of these life insurance assets and liabilities and their compliance with products specificities and related guarantees.
- Assessing the quantitative and qualitative key best estimate assumptions used in selected actuarial models, including considerations of their reasonableness based on experience studies, our knowledge of the Group and local markets, products offered, publicly available market and macroeconomic data.
- On a sample basis, independent calculation of Life DAC and future life policyholder benefit reserves balances.

Finally, we assessed the appropriateness of accounting policies used and adequacy of the disclosures in the consolidated financial statements.

Based on audit procedures performed, we did not identify any exceptions related to the valuation of actuarial determined life insurance assets and liabilities.



6

Disclosure on the impact of the initial application of IFRS 17 relating to the building block and variable fee measurement approaches

Area of focus

International Financial Reporting Standards 17, Insurance Contracts (IFRS 17) becomes effective for annual reporting periods beginning on or after January 1, 2023. On transition to the new standard, shareholders equity as of January 1, 2022, is expected to decrease by USD 8.8 billion, resulting from a decrease of USD 14.4 billion relating to the recognition of the Contractual Service Margin (CSM) as part of the insurance contract assets and liabilities and an increase of USD 5.6 billion relating to a combination of the derecognition of intangibles, other valuation differences and deferred tax.

Particular attention has to be paid to the related disclosures and information relating to the building block and variable fee measurement models, given the complexity of the new standard, the significant level of judgement required in the measurement of the transition CSM, and the significance of the impact and disclosure to the Group's financial position as of January 1, 2022.

Accordingly, we have identified this as a key audit matter.

Refer to note 2 of the accompanying financial statements, which provides quantitative and qualitative information on the expected impact of the new standard and the key accounting policy choices.



1

Our audit response

We assessed and tested the design effectiveness of selected key controls relevant to the determination of the IFRS 17 transition adjustment and relating disclosure. These included controls over the calculation of the transition CSM.

We executed our substantive procedures in relation to this disclosure, including assessing the:

- interpretation of the requirements of IFRS 17,
- completeness and accuracy of the data,
- appropriateness of key parameters and assumptions,
- implementation of new systems and models, and
- appropriateness of the disclosures on the expected impact.

We have obtained an understanding of Group's implementation program and process for determining the impact of the adoption of the new standard on the consolidated financial statements as of 1 January 2022. Furthermore, we have performed, among others, the following substantive audit procedures using the work of our actuarial specialists:

- We analyzed the Group's accounting policies and actuarial methodology to evaluate its compliance with IFRS 17.
- We assessed the analyses of contracts prepared by the Group for the purpose
 of the classification according to the different measurement models (either the
 building block approach (BBA), variable fee approach (VFA) or premium
 allocation approach (PAA)) and tested such analyses to the underlying
 contracts on a sample basis.
- In respect of the transition approaches (Fully retrospective, Modified retrospective or Fair Value approach) applied in the calculation of the CSM, we evaluated the Group's assessment on the availability of reasonable and supportable historic information required by the full retrospective approach and the appropriateness of simplifications, under the modified retrospective approach, or fair value approach applied.
- We tested input data and key parameters used in the calculation of the transition balances measured under the BBA and VFA to underlying source systems on a sample basis.
- We assessed the appropriateness and consistency of key assumptions used in the calculation of the transition balances measured under the BBA and VFA with those used in IFRS 4, publicly available market data, our knowledge of the products and the requirements of IFRS 17 as well as IAS 8.
- We tested the calculations of the IFRS 17 transition balances measured under the BBA and VFA either through review of the calculation logic within the newly implemented models, or through independent recalculations on a sample basis.

Based on audit procedures performed, we did not identify any material exceptions related to the valuation of the transition balances measured under the building block and variable fee approaches of IFRS 17. We further did not identify material exceptions related to the disclosure requirements of IAS 8.



8

Recoverability of goodwill and attorney-in-fact contracts

Area of focus

As of December 31, 2022, the Group recognized goodwill and attorney-in-fact (AIF) contract intangibles with a net carrying amount of USD 4,420 million and USD 2,650 million, respectively. Goodwill is allocated to the cash generating units (CGUs) that are identified at the segment level.

Management performs impairment testing of goodwill and intangible assets with indefinite useful life (i.e., the AIF intangible) at least once annually to ensure that the net carrying amount does not exceed the recoverable amount per CGU and there is no impairment in the relevant CGU.

Estimation of the recoverable amount requires management to use complex models, expert judgment and is based on several complex and subjective assumptions, particularly in respect of projections of future income based on prospective business plans, perpetual growth rates, and discount rates.

Accordingly, we deem the measurement of the recoverable amount of goodwill and attorney-in-fact contract to be a key audit matter.

The accounting policies and critical accounting judgments and estimates related to goodwill and attorney-in-fact contract are disclosed in Notes 3 and 4 respectively and additional information on goodwill and attorney-in-fact contract is presented in Note 14 to the consolidated financial statements.

Our audit response

We assessed and tested the design effectiveness of selected key controls within the Group's goodwill impairment testing process. These included controls over model used and centrally provided key assumptions.

We executed our procedures using the work of valuation specialists.

Our procedures included:

- Performance of risk assessment by CGU based on multiple criteria including materiality, headroom, complexity and other risk considerations.
- Evaluating whether the goodwill and AIF intangible allocation to CGUs as identified by management is supportable.
- Assessment of the valuation methodology and models used by management to determine the goodwill and AIF recoverable amount.
- Assessment of key assumptions provided at the Group level, i.e. discount rates, perpetual growth rates, including consistency of key assumptions with market and industry specific reference values, and tax rate.



9

- Performance of risk based substantive procedures for selected CGUs regarding key assumptions including evaluating the:
 - consistency of projected future cash flows with management's most recent estimates including those used in the Group's planning process,
 - assumptions made with respect to projected future cash flows are reasonable in terms of the applicable CGU's economic and financial outlook, including the impacts of the current macro-economic environment,
 - comparison of actual results versus historical projected financial information,
 - completeness and accuracy of data used by management to project future cash flows, and
 - sensitivity analysis performed by management and performance of additional procedures to assess the appropriateness of key assumptions used by management.
- Analysis of recoverable amounts against market capitalization to corroborate fair value estimates.

Finally, we assessed the appropriateness of accounting policies used and adequacy of the disclosures in the consolidated financial statements.

Based on audit procedures performed, we did not find any exceptions to the recoverability of goodwill and attorney-in-fact contract.



Other information

The Board of Directors is responsible for the other information. The other information comprises the information included in the annual report, but does not include the consolidated financial statements, the stand-alone financial statements, 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.



10



Board of Directors' responsibilities for the consolidated financial statements

The Board of Directors is responsible for the preparation of the consolidated financial statements, which give a true and fair view in accordance with IFRS 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, ISA 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.

A further description of our responsibilities for the audit of the consolidated financial statements is located on EXPERTsuisse's website at: https://www.expertsuisse.ch/en/audit-report. This description forms an integral part of our report.

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.

Ernst & Young Ltd

Isabelle Santenac Licensed audit expert (Auditor in charge) Thomas Fiepke Certified Public Accountant (U.S.)

Disclaimer and cautionary statement

Certain statements in this document are forward-looking statements, including, but not limited to, statements that are predictions of or indicate future events, trends, plans or objectives of Zurich Insurance Group Ltd or the Zurich Insurance Group (the Group). Forward-looking statements include statements regarding the Group's targeted profit, return on equity targets, expenses, pricing conditions, dividend policy and underwriting and claims results, as well as statements regarding the Group's understanding of general economic, financial and insurance market conditions and expected developments. Undue reliance should not be placed on such statements because, by their nature, they are subject to known and unknown risks and uncertainties and can be affected by other factors that could cause actual results and plans and objectives of Zurich Insurance Group Ltd or the Group to differ materially from those expressed or implied in the forward-looking statements (or from past results). Factors such as (i) general economic conditions and competitive factors, particularly in key markets; (ii) the risk of a global economic downturn, in the financial services industries in particular; (iii) performance of financial markets; (iv) levels of interest rates and currency exchange rates; (v) frequency, severity and development of insured claims events; (vi) mortality and morbidity experience; (vii) policy renewal and lapse rates; (viii) increased litigation activity and regulatory actions; and (ix) changes in laws and regulations and in the policies of regulators may have a direct bearing on the results of operations of Zurich Insurance Group Ltd and its Group and on whether the targets will be achieved. Specifically in relation with the COVID-19 related statements, such statements were made on the basis of circumstances prevailing at a certain time and on the basis of specific terms and conditions (in particular applicable exclusions) of insurance policies as written and interpreted by the Group and may be subject to regulato

All references to 'Farmers Exchanges' mean Farmers Insurance Exchange, Fire Insurance Exchange, Truck Insurance Exchange and their subsidiaries and affiliates. The three Exchanges are California domiciled interinsurance exchanges owned by their policyholders with governance oversight by their Boards of Governors. Farmers Group, Inc. and its subsidiaries are appointed as the attorneys-in-fact for the three Exchanges and in that capacity provide certain non-claims services and ancillary services to the Farmers Exchanges. Neither Farmers Group, Inc., nor its parent companies, Zurich Insurance Company Ltd and Zurich Insurance Group Ltd, have any ownership interest in the Farmers Exchanges. Financial information about the Farmers Exchanges is proprietary to the Farmers Exchanges, but is provided to support an understanding of the performance of Farmers Group, Inc. and Farmers Reinsurance Company.

It should be noted that past performance is not a guide to future performance. Please also note that interim results are not necessarily indicative of full year results.

Persons requiring advice should consult an independent adviser.

This communication does not constitute an offer or an invitation for the sale or purchase of securities in any jurisdiction.

THIS COMMUNICATION DOES NOT CONTAIN AN OFFER OF SECURITIES FOR SALE IN THE UNITED STATES; SECURITIES MAY NOT BE OFFERED OR SOLD IN THE UNITED STATES ABSENT REGISTRATION OR EXEMPTION FROM REGISTRATION, AND ANY PUBLIC OFFERING OF SECURITIES TO BE MADE IN THE UNITED STATES WILL BE MADE BY MEANS OF A PROSPECTUS THAT MAY BE OBTAINED FROM THE ISSUER AND THAT WILL CONTAIN DETAILED INFORMATION ABOUT THE COMPANY AND MANAGEMENT, AS WELL AS FINANCIAL STATEMENTS.