

Warsaw, 29 March 2023

Management Board of Powszechny Zakład Ubezpieczeń Spółka Akcyjna

**Motion
to the Ordinary Shareholder Meeting of PZU SA**

Regarding:

approval of the Consolidated Financial Statements of the Powszechny Zakład Ubezpieczeń Spółka Akcyjna Group for the year ended 31 December 2022, prepared in accordance with the International Financial Reporting Standards.

Body of the motion:

We hereby move for the Ordinary Shareholder Meeting of PZU SA to approve the Consolidated Financial Statements of the Powszechny Zakład Ubezpieczeń Spółka Akcyjna Group for the year ended 31 December 2022 prepared according to International Financial Reporting Standards.

Justification:

The Ordinary Shareholder Meeting should review and approve the group's financial statements as defined in the accounting regulations. Moreover, the annual consolidated financial statements are subject to approval by the Ordinary Shareholder Meeting no later than within 6 months from the balance sheet date (pursuant to Article 395(1) and (5) of the Commercial Company Code in conjunction with Article 63c(4) of the Accounting Act of 29 September 1994, and §10(1) and §18(1) of the PZU SA Articles of Association).

By Resolution No. UZ/81/2023 of 29 March 2023 the PZU SA Management Board adopted and by Resolution No. URN/16/2023 of 29 March 2023 the PZU SA Supervisory Board issued a favorable assessment of the Consolidated Financial Statements of the Powszechny Zakład Ubezpieczeń Spółka Akcyjna Group for the year ended 31 December 2022, prepared in accordance with International Financial Reporting Standards, and recommended that the PZU SA Ordinary Shareholder Meeting approve it.

Submitted on behalf of the PZU SA Management Board by:

/Tomasz Kulik/

/Maciej Rapkiewicz/

Attachment:

- 1) draft resolution of the PZU SA Shareholder Meeting to approve the Consolidated Financial Statements of the Powszechny Zakład Ubezpieczeń Spółka Akcyjna Group for the year ended 31 December 2022, prepared in accordance with International Financial Reporting Standards.

Powszechny Zakład Ubezpieczeń
Spółka Akcyjna
Group

Consolidated financial statements for the year ended
31 December 2022 prepared in accordance with
International Financial Reporting Standards



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Consolidated profit and loss account

Consolidated profit and loss account	Note	1 January – 31 December 2022	1 January – 31 December 2021
Gross written premiums	11	26,710	25,080
Reinsurers' share in gross written premium		(1,695)	(1,300)
Net written premiums		25,015	23,780
Movement in net provision for unearned premiums		(718)	(548)
Net earned premiums		24,297	23,232
Revenue from commissions and fees	12	5,136	4,738
Interest income calculated using the effective interest rate	13	18,626	9,782
Other net investment income	14	(384)	418
Result on derecognition of financial instruments and investments	15	(492)	407
Movement in allowances for expected credit losses and impairment losses on financial instruments	16	(3,271)	(1,849)
Net movement in fair value of assets and liabilities measured at fair value	17	704	797
Other operating income	18	1,896	1,602
Claims, benefits and movement in technical provisions		(16,894)	(16,130)
Reinsurers' share in claims, benefits and movement in technical provisions		1,352	399
Net insurance claims and benefits	19	(15,542)	(15,731)
Fee and commission expenses	20	(1,449)	(1,194)
Interest expenses	21	(4,767)	(418)
Acquisition expenses	22	(3,903)	(3,572)
Administrative expenses	23	(7,575)	(6,826)
Other operating expenses	25	(5,646)	(3,917)
Operating profit		7,630	7,469
Share of the net financial results of entities measured by the equity method		(25)	(15)
Profit before tax		7,605	7,454
Income tax	26	(2,346)	(2,020)
Net profit, including:		5,259	5,434
- profit attributable to the equity holders of the Parent Company		3,374	3,336
- profit (loss) attributed to holders of non-controlling interest		1,885	2,098
Weighted average basic and diluted number of common shares	27	863,390,384	863,344,936
Basic and diluted profit (loss) per common share (in PLN)	27	3.91	3.86

Consolidated statement of comprehensive income

Consolidated statement of comprehensive income	Note	1 January – 31 December 2022	1 January – 31 December 2021
Net profit		5,259	5,434
Other comprehensive income	26	(2,924)	(5,148)
Subject to subsequent transfer to profit or loss		(3,036)	(5,253)
Valuation of debt instruments		(1,799)	(2,229)
Measurement of loan receivables from clients		(4)	(38)
Foreign exchange translation differences		23	5
Cash flow hedging		(1,256)	(2,991)
Not to be transferred to profit or loss in the future		112	105
Valuation of equity instruments		126	74
Reclassification of real property from property, plant and equipment to investment property		2	-
Actuarial gains and losses related to provisions for employee benefits		(16)	31
Total net comprehensive income		2,335	286
- comprehensive income attributable to equity holders of the Parent Company		2,083	1,324
- comprehensive income attributable to holders of non-controlling interest		252	(1,038)

Consolidated statement of financial position

Assets	Note	31 December 2022	31 December 2021
Goodwill	28	2,808	2,778
Intangible assets	29	3,282	3,403
Deferred tax assets	49	3,085	3,058
Other assets	30	811	633
Deferred acquisition costs	31	1,762	1,573
Reinsurers' share in technical provisions	42	4,015	2,540
Property, plant and equipment	32	4,304	4,144
Investment property	33	3,021	2,773
Entities measured by the equity method	34	52	93
Assets securing liabilities	37	972	1,336
Assets held for sale	50	654	643
Loan receivables from clients	35	212,693	215,008
Financial derivatives	36	16,197	8,328
Investment financial assets	37	153,861	136,954
Measured at amortized cost		106,013	82,893
Measured at fair value through other comprehensive income		39,725	44,896
Measured at fair value through profit or loss		8,123	9,165
Receivables	38	12,642	9,418
Cash and cash equivalents	40	15,960	9,447
Total assets		436,119	402,129

Consolidated statement of financial position (cont.)

Equity and liabilities	Note	31 December 2022	31 December 2021
Equity			
Equity attributable to equity holders of the Parent		17,489	17,080
Share capital	41.1	86	86
Other capital	41.3	14,663	14,343
Retained earnings		2,740	2,651
Retained losses		(634)	(685)
Net profit		3,374	3,336
Non-controlling interest	2.4	22,263	22,914
Total equity		39,752	39,994
Liabilities			
Technical provisions	42	52,606	50,173
Subordinated liabilities	43	6,184	6,274
Liabilities on the issue of own debt securities	44	11,090	5,940
Liabilities to banks	45	7,720	7,470
Liabilities to clients under deposits	46	278,058	265,155
Financial derivatives	36	20,956	11,880
Other liabilities	47	17,178	13,203
Provisions	48	1,711	1,206
Deferred tax liability	49	831	806
Liabilities related directly to assets classified as held for sale	50	33	28
Total liabilities		396,367	362,135
Total equity and liabilities		436,119	402,129

Consolidated statement of changes in equity

Consolidated statement of changes in equity	Equity attributable to equity holders of the parent									Non-controlling interest	Total equity	
	Share capital	Other capital						Retained earnings				Total
		Treasury shares	Supplementary capital	Other reserve capital	Cumulative other comprehensive income			Retained profit or loss	Net profit			
					Revaluation reserve	Actuarial gains and losses related to provisions for employee benefits	Foreign exchange translation differences					
Note	41.1		41.3		41.3		41.3				2.4	
As at 1 January 2022	86	(5)	14,816	600	(1,140)	3	69	2,651	-	17,080	22,914	39,994
Valuation of equity instruments	-	-	-	-	172	-	-	-	-	172	(46)	126
Valuation of debt instruments	-	-	-	-	(1,220)	-	-	-	-	(1,220)	(579)	(1,799)
Measurement of loan receivables from clients	-	-	-	-	-	-	-	-	-	-	(4)	(4)
Cash flow hedging	-	-	-	-	(259)	-	-	-	-	(259)	(997)	(1,256)
Foreign exchange translation differences	-	-	-	-	-	-	23	-	-	23	-	23
Actuarial gains and losses related to provisions for employee benefits	-	-	-	-	-	(9)	-	-	-	(9)	(7)	(16)
Reclassification of real property from property, plant and equipment to investment property	-	-	-	-	2	-	-	-	-	2	-	2
Total net other comprehensive income	-	-	-	-	(1,305)	(9)	23	-	-	(1,291)	(1,633)	(2,924)
Net profit (loss)	-	-	-	-	-	-	-	-	3,374	3,374	1,885	5,259
Total comprehensive income	-	-	-	-	(1,305)	(9)	23	-	3,374	2,083	252	2,335
Other changes, including:	-	1	499	1,121	(10)	-	-	(3,285)	-	(1,674)	(903)	(2,577)
Distribution of financial result	-	-	1,439	1,121	-	-	-	(2,560)	-	-	(903)	(903)
PZU dividend	-	-	(950)	-	-	-	-	(725)	-	(1,675)	-	(1,675)
Transactions on treasury shares	-	1	-	-	-	-	-	-	-	1	-	1
Sale of revalued properties and other	-	-	10	-	(10)	-	-	-	-	-	-	-
As at 31 December 2022	86	(4)	15,315	1,721	(2,455)	(6)	92	(634)	3,374	17,489	22,263	39,752

Consolidated statement of changes in equity (continued)

Consolidated statement of changes in equity	Equity attributable to equity holders of the parent										Non-controlling interest	Total equity
	Share capital	Other capital						Retained earnings		Total		
		Treasury shares	Supplementary capital	Other reserve capital	Cumulative other comprehensive income			Retained profit or loss	Net profit			
					Revaluation reserve	Actuarial gains and losses related to provisions for employee benefits	Foreign exchange translation differences					
Note	41.1		41.3		41.3		41.3				2.4	
As at 1 January 2021	86	(9)	15,848	295	891	3	65	1,598	-	18,777	24,626	43,403
Valuation of equity instruments	-	-	-	-	49	-	-	-	-	49	25	74
Valuation of debt instruments	-	-	-	-	(1,185)	-	-	-	-	(1,185)	(1,044)	(2,229)
Measurement of loan receivables from clients	-	-	-	-	(8)	-	-	-	-	(8)	(30)	(38)
Cash flow hedging	-	-	-	-	(872)	-	-	-	-	(872)	(2,119)	(2,991)
Foreign exchange translation differences	-	-	-	-	-	-	4	-	-	4	1	5
Actuarial gains and losses related to provisions for employee benefits	-	-	-	-	-	-	-	-	-	-	31	31
Total net other comprehensive income	-	-	-	-	(2,016)	-	4	-	-	(2,012)	(3,136)	(5,148)
Net profit (loss)	-	-	-	-	-	-	-	-	3,336	3,336	2,098	5,434
Total comprehensive income	-	-	-	-	(2,016)	-	4	-	3,336	1,324	(1,038)	286
Other changes, including:	-	4	(1,032)	305	(15)	-	-	(2,283)	-	(3,021)	(674)	(3,695)
Distribution of financial result	-	-	1,020	305	-	-	-	(1,325)	-	-	(674)	(674)
PZU dividend	-	-	(2,064)	-	-	-	-	(958)	-	(3,022)	-	(3,022)
Transactions on treasury shares	-	4	(3)	-	-	-	-	-	-	1	-	1
Sales of equity instruments designated for measurement at fair value through other comprehensive income	-	-	10	-	(10)	-	-	-	-	-	-	-
Sale of revalued properties and other	-	-	5	-	(5)	-	-	-	-	-	-	-
As at 31 December 2021	86	(5)	14,816	600	(1,140)	3	69	(685)	3,336	17,080	22,914	39,994

Consolidated cash flow statement

Consolidated cash flow statement	Note	1 January - 31 December 2022	1 January - 31 December 2021
Profit before tax		7,605	7,454
Adjustments		14,085	(42)
Movement in loan receivables from clients		(745)	(7,576)
Movement in liabilities under deposits		12,288	9,271
Movement in the valuation of assets measured at fair value		(704)	(797)
Interest income and expenses		(3,480)	(2,663)
Realized gains/losses from investing activities and impairment losses		3,445	1,281
Impairment charges for property, plant and equipment, intangible assets and goodwill		104	35
Net foreign exchange differences		240	240
Movement in deferred acquisition expenses		(189)	(23)
Amortization of intangible assets and depreciation of property, plant and equipment		1,328	1,348
Movement in the reinsurers' share in technical provisions		(1,475)	(439)
Movement in technical provisions		2,433	1,702
Movement in receivables		(1,423)	(384)
Movement in liabilities		3,170	1,073
Cash flow on investment contracts		10	12
Acquisitions and redemptions of participation units and investment certificates of mutual funds		(35)	155
Income tax paid		(1,573)	(1,847)
Subsidy from the Bank Guarantee Fund related to the acquisition of Idea Bank		-	193
Increase in cash related to the acquisition of Idea Bank		-	1,097
Other adjustments		691	(2,720)
Net cash flows from operating activities		21,690	7,412
Cash flow from investing activities			
Proceeds		670,545	634,101
- sale of investment property		8	171
- proceeds from investment property		369	300
- sale of intangible assets and property, plant and equipment		136	148
- sale of ownership interests and shares		548	1,327
- realization of debt securities		234,443	326,237
- closing of buy-sell-back transactions		258,599	199,209
- closing of term deposits with credit institutions		139,409	77,207
- realization of other investments		34,637	27,667
- interest received		2,240	1,727
- dividends received		131	69
- other investment proceeds		25	39

Consolidated cash flow statement (continued)

Consolidated cash flow statement	Note	1 January – 31 December 2022	1 January – 31 December 2021
Expenditures		(687,903)	(632,248)
- purchase of investment properties		(111)	(508)
- expenditures for the maintenance of investment property		(197)	(141)
- purchase of intangible assets and property, plant and equipment		(1,026)	(1,255)
- purchase of ownership interests and shares		(1,298)	(670)
- purchase of ownership interests and shares in subsidiaries		(24)	(4)
- decrease in cash due to the sale of entities and change in the scope of consolidation		-	(6)
- purchase of debt securities		(248,253)	(324,661)
- opening of buy-sell-back transactions		(261,268)	(198,696)
- purchase of term deposits with credit institutions		(141,159)	(77,540)
- purchase of other investments		(34,544)	(28,740)
- other expenditures for investments		(23)	(27)
Net cash flows from investing activities		(17,358)	1,853
Cash flows from financing activities			
Proceeds		203,451	97,154
- proceeds from loans and borrowings	55	1,869	63
- proceeds on the issue of own debt securities	55	24,908	3,058
- opening of repurchase transactions	55	176,674	94,033
Expenditures		(201,337)	(104,977)
- dividends paid to equity holders of the parent	41.2.1.1	(1,675)	(3,022)
- dividends to owners of non-controlling interests		(903)	(674)
- repayment of loans and borrowings	55	(1,243)	(1,800)
- redemption of own debt securities	55	(19,987)	(5,069)
- closing of repurchase transactions	55	(176,995)	(93,979)
- interest on loans and borrowings	55	(45)	(42)
- interest on outstanding debt securities	55	(193)	(99)
- expenditures on leases	55	(296)	(292)
Net cash flows from financing activities		2,114	(7,823)
Total net cash flows		6,446	1,442
Cash and cash equivalents at the beginning of the period		9,447	7,939
Movement in cash due to foreign exchange differences		67	66
Cash and cash equivalents at the end of the period, including:	40	15,960	9,447
- restricted cash	40	27	28

Supplementary information and notes

1. Introduction

Compliance statement

These consolidated financial statements of the Powszechny Zakład Ubezpieczeń Spółka Akcyjna Group (“consolidated financial statements” and “PZU Group”, respectively) have been prepared in line with the International Financial Reporting Standards as endorsed by the European Commission (“IFRS”), published and in force as at 31 December 2022.

Period covered by the statements

These consolidated financial statements cover the period of 12 months from 1 January to 31 December 2022.

Approval of the statements

These consolidated financial statements were signed and authorized for publication by the Management Board of Powszechny Zakład Ubezpieczeń Spółka Akcyjna on 29 March 2023 and will be subject to approval by the shareholder meeting of Powszechny Zakład Ubezpieczeń Spółka Akcyjna.

Functional and presentation currency

PZU’s functional and presentation currency is the Polish zloty. Unless noted otherwise, all amounts presented in these consolidated financial statements are stated in millions of Polish zloty.

The functional currency of the companies domiciled in Ukraine is the Ukrainian hryvnia, the euro is the functional currency of the companies domiciled in Lithuania, Latvia and Sweden and British pound – of the company domiciled in the United Kingdom.

Going concern assumption

These consolidated financial statements have been drawn up under the assumption that the PZU Group remains a going concern in the foreseeable future, i.e. in the period of at least 12 months after the end of the reporting period. As at the date of signing these consolidated financial statements, there are no facts or circumstances that would indicate a threat to the ability of the PZU Group to continue its activity in the period of 12 months after the end of the reporting period as a result of an intentional or an induced discontinuation or a material curtailment of its hitherto activity.

Making this assumption, in its assessment, the PZU Management Board took into account the impact of factors subject to uncertainty, in particular the macroeconomic situation and the armed conflict in Ukraine which began on 24 February 2022 (additional information on this matter is presented in section 59.9).

Discontinued operations

Both in 2022 and in 2021, the PZU Group did not discontinue any material type of activity.

Glossary

The most important terms, abbreviations and acronyms used in the consolidated financial statements are explained below.

Names of companies

Balta – AAS “BALTA”.

Alior Bank – Alior Bank SA.

Alior Bank Group – Alior Bank with its subsidiaries listed in section 2.2.

Pekao Group – Pekao with its subsidiaries listed in section 2.2.

Idea Bank – Idea Bank SA.

LD – AB “Lietuvos draudimas”.

Link4 – Link4 Towarzystwo Ubezpieczeń SA.

Pekao – Bank Pekao SA.

PFR – Polski Fundusz Rozwoju SA.

PIM – Pekao Investment Management SA.

PZU, Parent Company – Powszechny Zakład Ubezpieczeń Spółka Akcyjna.

PZU Finance AB – PZU Finance AB (publ.) in liquidation.

PZU LT GD – UAB “PZU Lietuva gyvybes draudimas”.

PZU CO – PZU Centrum Operacji SA.

PZU Ukraine – PRJSC IC “PZU Ukraine”.

PZU Ukraine Life – PRJSC IC “PZU Ukraine Life Insurance”.

PZU Życie – Powszechny Zakład Ubezpieczeń na Życie Spółka Akcyjna.

TFI Energia – Towarzystwo Funduszy Inwestycyjnych Energia Spółka Akcyjna.

TFI PZU – Towarzystwo Funduszy Inwestycyjnych PZU SA.

TUW PZUW – Towarzystwo Ubezpieczeń Wzajemnych Polski Zakład Ubezpieczeń Wzajemnych.

Other definitions

BFG – Bank Guarantee Fund (Polish: Bankowy Fundusz Gwarancyjny).

CDI – core deposit intangible.

CGU – cash generating unit.

CSM – contractual service margin.

EBA – European Banking Authority.

ECL – expected credit loss.

Forbearance – tools used to restructure debt, most frequently taking the form of arrangements provided to the debtor by the creditor.

GMM – general measurement model in accordance with IFRS 17.

CODM – chief operating decision maker within the meaning of IFRS 8 – Operating segments.

IBNR – Incurred But Not Reported or 2nd provision – provision for losses and accidents incurred but not reported.

IBOR – Interbank Offered Rate.

IRS – Interest rate swap.

PZU's standalone financial statements for 2022 – annual standalone financial statements of Powszechny Zakład Ubezpieczeń Spółka Akcyjna for 2022, prepared in accordance with PAS, signed by the PZU Management Board on 29 March 2023.

KNF – Polish Financial Supervision Authority.

Commercial Company Code – Act of 15 September 2000 entitled Commercial Company Code.

LGD – loss given default, expressed as a percentage of the total exposure in case of a counterparty's insolvency.

LRC – liability for remaining coverage.

IFRS – International Financial Reporting Standards, as endorsed by the European Commission, published and in force as at 31 December 2022.

NBP – National Bank of Poland.

NBU – National Bank of Ukraine.

PAA – premium allocation approach.

PD – probability of default of a counterparty over a specified time horizon.

POCI – Purchased or originated credit-impaired financial assets.

Tax Group – PZU Tax Group – on 22 September 2020, a Tax Group agreement was signed, covering 14 companies: PZU, PZU Życie, Link4, PZU CO, PZU Pomoc SA, Ogrodowa-Inwestycje sp. z o.o., PZU Zdrowie SA, Tulare Investments sp. z o.o., PZU CASH SA, Ipsilon sp. z o.o., PZU Finanse sp. z o.o., PZU LAB SA and Omicron Bis SA, PZU Projekt 01 SA. The Tax Group was established for a period of 3 years – from 1 January 2021 to 31 December 2023 – and the Head of the First Mazowiecki Tax Office issued a registration decision on 11 December 2020. PZU is the parent company representing the Tax Group. The Tax Group performs settlements with the Tax Office on a monthly basis. PZU pays advances for corporate income tax that are due from all the companies to the Tax Office, while the companies transfer the CIT advances related to their business activities to PZU.

PAS – Accounting Act of 29 September 1994 and regulations issued thereunder.

PLET – Polish Life Expectancy Tables published annually by the Central Statistical Office of Poland.

RBNP – Reported But Not Paid, or 1st provision – provision for losses reported but not handled and handled but not paid.

IASB – International Accounting Standards Board.

BMR – Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds.

Capital Requirements Regulation, CRR – Regulation (EU) 2013/575 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012.

Consolidated financial statements – consolidated financial statements of the PZU Group prepared in accordance with IFRS for the year ended 31 December 2022.

CJEU – Court of Justice of the European Union.

KNF Office – Office of the Polish Financial Supervision Authority.

Insurance and Reinsurance Activity Act – Act of 11 September 2015 on Insurance and Reinsurance Activity.

Crowdfunding Act – Act of 7 July 2022 on crowdfunding for economic ventures and assistance to borrowers.

Supplementary Oversight Act – Act of 15 April 2005 on supplementary oversight over credit institutions and insurance undertakings, reinsurance undertakings and investment firms comprising a financial conglomerate.

EBA Guidelines – guidelines on legislative and non-legislative moratoria on loan repayments applied in light of the COVID-19 crisis (EBA/GL/2020/02) of 2 April 2020 (as amended).

PZU Ordinary Shareholder Meeting – Ordinary Shareholder Meeting of Powszechny Zakład Ubezpieczeń Spółka Akcyjna.

2. Composition of PZU Group

2.1 Key information on the PZU Group

Key information on the Group	
Name of the reporting entity	Powszechny Zakład Ubezpieczeń Spółka Akcyjna
Legal form	Spółka Akcyjna
Registered office	Poland
Country of registration	Poland
Registration address of the entity's offices	Rondo Ignacego Daszyńskiego 4, 00-843 Warsaw
Principal place of business	Rondo Ignacego Daszyńskiego 4, 00-843 Warsaw
Core business	property and casualty insurance (65.12 according to the Polish Classification of Business Activity and the Statistical Classification of Economic Activities in Europe).
National Court Register (Krajowy Rejestr Sądowy)	District Court for the capital city of Warsaw, 13th Commercial Division of the National Court Register, Register of commercial undertakings – number 0000009831

Change of address of PZU's registered office

Until 18 November 2022, PZU's headquarters were located at Al. Jana Pawła II 24 in Warsaw. As of 19 November 2022, the address of PZU's registered office has changed. The new address is Rondo Ignacego Daszyńskiego 4, 00-843 Warsaw. The change of PZU's address also involved a change in the jurisdiction of the Commercial Division of the National Court Register. After the change of address, the competent court for PZU is the District Court for the Capital City of Warsaw In Warsaw, 13th Commercial Division of the National Court Register (before the change, it was 12th Commercial Division).

2.2 PZU Group companies and associates

No.	Name of the entity	Registered office	Date of obtaining control / significant influence	% of the share capital and % of votes held directly or indirectly by PZU		Line of business and website
				31 December 2022	31 December 2021	
Consolidated insurance undertakings						
1	Powszechny Zakład Ubezpieczeń SA	Warsaw	n/a	n/a	n/a	Non-life insurance. https://www.pzu.pl/grupa-pzu/spolki/pzu-sa
2	Powszechny Zakład Ubezpieczeń na Życie SA	Warsaw	18.12.1991	100.00%	100.00%	Life insurance. https://www.pzu.pl/pl/grupa-pzu/spolki/pzu-zycie
3	Link4 Towarzystwo Ubezpieczeń SA	Warsaw	15.09.2014	100.00%	100.00%	Non-life insurance. https://www.link4.pl/
4	Towarzystwo Ubezpieczeń Wzajemnych Polski Zakład Ubezpieczeń Wzajemnych	Warsaw	20.11.2015	100.00%	100.00%	Non-life insurance. https://www.tuwpzuw.pl/
5	AB "Lietuvos draudimas"	Vilnius (Lithuania)	31.10.2014	100.00%	100.00%	Non-life insurance. http://www.ld.lt/
6	AAS "BALTA"	Riga, Latvia	30.06.2014	100.00% ¹⁾	100.00% ¹⁾	Property insurance. http://www.balta.lv/
7	PRJSC IC "PZU Ukraine"	Kiev (Ukraine)	01.07.2005	100.00%	100.00%	Property insurance. http://www.pzu.com.ua/
8	PRJSC IC "PZU Ukraine Life Insurance"	Kiev (Ukraine)	01.07.2005	100.00%	100.00%	Life insurance. http://www.pzu.com.ua/
9	UAB "PZU Lietuva gyvybes draudimas"	Vilnius (Lithuania)	26.04.2002	99.34%	99.34%	Life insurance. https://pzugd.lt/
Consolidated companies – Pekao Group						
10	Bank Pekao SA	Warsaw	07.06.2017	20.02%	20.02%	Banking services. https://www.pekao.com.pl/
11	Pekao Bank Hipoteczny SA	Warsaw	07.06.2017	20.02%	20.02%	Banking services. http://www.pekaobh.pl/
12	Pekao Leasing sp. z o.o.	Warsaw	07.06.2017	20.02%	20.02%	Lease services. http://www.pekaoleasing.com.pl/
13	Pekao Investment Banking SA	Warsaw	07.06.2017	20.02%	20.02%	Brokerage services. http://pekaob.pl/
14	Pekao Faktoring sp. z o.o.	Lublin	07.06.2017	20.02%	20.02%	Factoring services. https://www.pekaofaktoring.pl/
15	Pekao Towarzystwo Funduszy Inwestycyjnych SA	Warsaw	11.12.2017	20.02%	20.02%	Creation, representing and management of mutual funds. https://pekaotfi.pl/
16	Centrum Kart SA	Warsaw	07.06.2017	20.02%	20.02%	Auxiliary financial services. http://www.centrumkart.pl/
17	Pekao Financial Services sp. z o.o.	Warsaw	07.06.2017	46.81% ²⁾	46.81% ²⁾	Transfer agent. http://www.pekao-fs.com.pl/pl/
18	Pekao Direct sp. z o.o.	Kraków	07.06.2017	20.02%	20.02%	Call Center services. https://www.pekaodirect.pl/
19	Pekao Property SA in liquidation	Warsaw	07.06.2017	20.02%	20.02%	Development activity.
20	FPB – Media sp. z o.o. in bankruptcy	Warsaw	07.06.2017	20.02%	20.02%	Development activity.
21	Pekao Fundusz Kapitałowy sp. z o.o. in liquidation	Warsaw	07.06.2017	20.02%	20.02%	Business consulting.

No.	Name of the entity	Registered office	Date of obtaining control / significant influence	% of the share capital and % of votes held directly or indirectly by PZU		Line of business and website
				31 December 2022	31 December 2021	
Consolidated companies – Pekao Group – continued						
22	Pekao Investment Management SA	Warsaw	11.12.2017	20.02%	20.02%	Asset management. https://pekaotfi.pl/o-nas/pekao-investment-mangament
23	PeUF sp. z o.o.	Warsaw	20.07.2021	20.02%	20.02%	Auxiliary financial activities.
Consolidated companies – Alior Bank Group						
24	Alior Bank SA	Warsaw	18.12.2015	31.93%	31.93%	Banking services. https://www.aliorbank.pl/
25	Alior Services sp. z o.o.	Warsaw	18.12.2015	31.93%	31.93%	Other activity supporting financial services, excluding insurance and pension funds.
26	Alior Leasing sp. z o.o.	Wrocław	18.12.2015	31.93%	31.93%	Leasing services. https://www.aliorbank.pl/wlasna-dzialalnosc/alior-leasing.html
27	Meritum Services ICB SA	Gdańsk	18.12.2015	31.93%	31.93%	IT services.
28	Alior Towarzystwo Funduszy Inwestycyjnych SA	Warsaw	18.12.2015	31.93%	31.93%	Asset management services and management of Alior SFIO subfunds. https://www.aliortfi.com/
29	Absource sp. z o.o.	Kraków	04.05.2016	31.93%	31.93%	Service activity in the area of IT.
30	AL Finance sp. z o.o.	Katowice	30.01.2017	31.93%	31.93%	Brokerage activity.
31	Corsham sp. z o.o.	Warsaw	04.02.2019	31.93%	31.93%	Business consulting.
32	RBL_VC sp. z o.o.	Warsaw	07.11.2019	31.93%	31.93%	Venture capital fund management activities.
33	RBL_VC sp. z o.o. ASI SKA	Warsaw	17.04.2020	31.93%	31.93%	Activity of trusts, funds and similar financial institutions.
Consolidated companies – PZU Zdrowie Group						
34	PZU Zdrowie SA	Warsaw	02.09.2011	100.00%	100.00%	Medical services. https://www.pzu.pl/pl/grupa-pzu/spolki/pzu-zdrowie
35	Centrum Medyczne Medica sp. z o.o.	Płock	09.05.2014	100.00%	100.00%	Medical services. https://www.plock.pzuzdrowie.pl/
36	Sanatorium Uzdrowiskowe “Krystynka” sp. z o.o.	Ciechocinek	09.05.2014	99.09%	99.09%	Hospital, physical therapy and spa services. http://www.sanatoriumkrystynka.pl/
37	Przedsiębiorstwo Świadczeń Zdrowotnych i Promocji Zdrowia ELVITA – Jaworzno III sp. z o.o.	Jaworzno	01.12.2014	100.00%	100.00%	Medical services. https://www.jaworzno.pzuzdrowie.pl/
38	Przedsiębiorstwo Usług Medycznych PROELMED sp. z o.o.	Łaziska Górne	01.12.2014	57.00%	57.00%	Medical services. http://www.proelmed.pl/
39	Centrum Medyczne Gamma sp. z o.o.	Warsaw	08.09.2015	100.00%	100.00%	Medical services. http://www.cmgamma.pl/
40	Centrum Medyczne św. Łukasza sp. z o.o.	Częstochowa	09.01.2018	100.00%	100.00%	Medical services. https://www.czystochowa.pzuzdrowie.pl/
41	Starówka sp. z o.o.	Warsaw	03.06.2019	100.00%	100.00%	Medical services. https://www.starowkanzoz.pl/

No.	Name of the entity	Registered office	Date of obtaining control / significant influence	% of the share capital and % of votes held directly or indirectly by PZU		Line of business and website
				31 December 2022	31 December 2021	
Consolidated companies – PZU Zdrowie Group – continued						
42	Tomma Diagnostyka Obrazowa SA	Poznań	09.12.2019	100.00%	100.00%	Medical services. https://tomma.com.pl/
43	Bonus-Diagnosta sp. z o.o. ³⁾	Poznań	09.12.2019	100.00%	100.00%	Medical services.
44	Centrum Medyczne Nowa 5 sp. z o.o. ⁴⁾	Gorzów Wlkp.	30.12.2022	100.00%	n/a	Medical services. http://www.nowa5.pl/
Consolidated companies – other companies						
45	Powszechne Towarzystwo Emerytalne PZU SA	Warsaw	08.12.1998	100.00%	100.00%	Management of pension funds. https://www.pzu.pl/pl/grupa-pzu/spolki/pte-pzu
46	PZU Centrum Operacji SA	Warsaw	30.11.2001	100.00%	100.00%	Auxiliary activity associated with insurance and pension funds. https://www.pzu.pl/grupa-pzu/spolki/pzu-centrumoperacji
47	Towarzystwo Funduszy Inwestycyjnych PZU SA ⁵⁾	Warsaw	30.04.1999	100.00%	100.00%	Creation, representing and management of mutual funds. https://www.pzu.pl/pl/grupa-pzu/spolki/tfi-pzu
48	PZU Pomoc SA	Warsaw	18.03.2009	100.00%	100.00%	Provision of assistance services. https://www.pzu.pl/grupa-pzu/spolki/pzu-pomoc
49	PZU Finance AB (publ.) in liquidation	Stockholm (Sweden)	02.06.2014	100.00%	100.00%	Financial services.
50	PZU Finanse Sp. z o.o.	Warsaw	08.11.2013	100.00%	100.00%	Financial and accounting services.
51	Tower Inwestycje Sp. z o.o.	Warsaw	27.08.1998	100.00%	100.00%	Development activity, operation and lease of properties. https://www.pzu.pl/pl/grupa-pzu/spolki/tower-inwestycje
52	Ogrodowa-Inwestycje sp. z o.o.	Warsaw	15.09.2004	100.00%	100.00%	Buying, operating, renting and selling real estate. http://www.ogrodowainwestycje.pl/
53	Arm Property sp. z o.o.	Kraków	26.11.2014	100.00%	100.00%	Purchase and sale of real estate.
54	Ipsilon sp. z o.o.	Warsaw	02.04.2009	100.00%	100.00%	Provision of assistance services and medical services.
55	PZU Corporate Member Limited	London (United Kingdom)	28.09.2017	100.00%	100.00%	Investment activity.
56	PZU LAB SA	Warsaw	13.09.2011	100.00%	100.00%	Consulting and training services, development of technology innovation to support technical and procedural security processes and risk management. https://www.pzu.pl/pl/grupa-pzu/spolki/pzu-lab
57	Omicron BIS SA	Warsaw	28.08.2014	100.00%	100.00%	No business conducted.

No.	Name of the entity	Registered office	Date of obtaining control / significant influence	% of the share capital and % of votes held directly or indirectly by PZU		Line of business and website
				31 December 2022	31 December 2021	
Consolidated companies – other companies – continued						
58	LLC SOS Services Ukraine	Kiev (Ukraine)	01.07.2005	100.00%	100.00%	Assistance services.
59	PZU CASH SA	Warsaw	15.09.2017	100.00%	100.00%	Other monetary intermediation. https://www.pzu.pl/grupa-pzu/spolki/pzu-cash-sa
60	Tulare Investments sp. z o.o.	Warsaw	15.09.2017	100.00%	100.00%	No business conducted.
61	PZU Projekt 01 SA	Warsaw	01.09.2020	100.00%	100.00%	No business conducted.
Consolidated companies – Armatura Group						
62	Armatura Kraków SA	Kraków	07.10.1999	100.00%	100.00%	Production and sale of radiators and sanitary fittings and administration and management of the group. https://www.kfa.pl/
63	AQ SA in liquidation (formerly: Aquaform SA) ⁶⁾	Kraków	15.01.2015	100.00%	100.00%	Production and sale of bathroom accessories and fittings.
64	Aquaform Ukraine TOW in liquidation	Zhytomyr (Ukraine)	15.01.2015	100.00%	100.00%	No business conducted.
Consolidated companies – mutual funds						
65	PZU SFIO Universum	Warsaw	15.12.2009	n/a	n/a	Investment of funds collected from fund members.
66	PZU FIZ Sektora Nieruchomości 2 ⁷⁾	Warsaw	21.11.2011	n/a	n/a	as above
67	PZU FIZ Aktywów Niepublicznych BIS 1	Warsaw	12.12.2012	n/a	n/a	as above
68	PZU FIZ Aktywów Niepublicznych BIS 2	Warsaw	19.11.2012	n/a	n/a	as above
69	inPZU Inwestycji Ostrożnych	Warsaw	10.04.2018	n/a	n/a	as above
70	inPZU Obligacje Polskie	Warsaw	10.04.2018	n/a	n/a	as above
71	inPZU Akcje Polskie	Warsaw	10.05.2018	n/a	n/a	as above
72	inPZU Akcji Rynków Rozwiniętych	Warsaw	10.05.2018	n/a	n/a	as above
73	inPZU Obligacji Rynków Rozwiniętych	Warsaw	10.05.2018	n/a	n/a	as above
74	inPZU Obligacji Rynków Wschodzących	Warsaw	10.05.2018	n/a	n/a	as above
75	inPZU Akcje Rynków Wschodzących	Warsaw	28.10.2019	n/a	n/a	as above
76	inPZU Akcje Amerykańskie	Warsaw	28.10.2019	n/a	n/a	as above
77	inPZU Akcje CEE plus	Warsaw	28.10.2019	n/a	n/a	as above
78	inPZU Puls Życia 2025	Warsaw	22.10.2020	n/a	n/a	as above
79	inPZU Puls Życia 2030	Warsaw	22.10.2020	n/a	n/a	as above
80	inPZU Puls Życia 2040	Warsaw	22.10.2020	n/a	n/a	as above
81	inPZU Puls Życia 2050	Warsaw	22.10.2020	n/a	n/a	as above

No.	Name of the entity	Registered office	Date of obtaining control / significant influence	% of the share capital and % of votes held directly or indirectly by PZU		Line of business and website
				31 December 2022	31 December 2021	
Consolidated companies – mutual funds – continued						
82	inPZU Puls Życia 2060	Warsaw	22.10.2020	n/a	n/a	as above
83	PZU FIZ Legato	Warsaw	11.08.2021	n/a	n/a	as above
84	inPZU Akcje Rynku Surowców	Warsaw	15.12.2021	n/a	n/a	as above
85	inPZU Akcje Rynku Złota	Warsaw	15.12.2021	n/a	n/a	as above
86	inPZU Akcje Sektora Zielonej Energii	Warsaw	15.12.2021	n/a	n/a	as above
87	inPZU Akcje Sektora Informatycznego	Warsaw	15.12.2021	n/a	n/a	as above
88	inPZU Akcje Sektora Nieruchomości	Warsaw	15.12.2021	n/a	n/a	as above
89	inPZU Akcje Europejskie	Warsaw	15.12.2021	n/a	n/a	as above
90	inPZU Obligacje Inflacyjne	Warsaw	15.12.2021	n/a	n/a	as above
Associates						
91	Sigma BIS SA	Warsaw	03.10.2019	34.00%	34.00%	Advertising activity.
92	RUCH SA	Warsaw	23.12.2020	30.92%	30.92%	Retail sale of newspapers and stationery in specialized stores. https://ruch.com.pl/
93	Krajowy Integrator Płatności SA ⁸⁾	Poznań	31.03.2021	7.67%	7.67%	Other monetary intermediation. https://tpay.com/

¹⁾ As at 31 December 2022 PZU is the holder of 100% of Balta's shares. As at 31 December 2021, Balta's shareholder base included one minority shareholder holding 1 share.

²⁾ PZU directly holds a 33.5% equity stake in Pekao Financial Services sp. z o.o. while Pekao holds 66.5%.

⁵⁾ Additional information on the acquisition of NZOZ Grupa Medical sp. z o.o. and its subsequent merger with Bonus-Diagnosta sp. z o.o. is presented in section 2.3.1.1.

⁴⁾ Information on the company's acquisition is presented in section 2.3.1.3.

⁵⁾ Additional information on the acquisition of TFI Energia and its subsequent merger with TFI PZU is presented in section 2.3.1.2.

⁶⁾ The change of the company's name and registered office was registered on 15 July 2022. On 1 January 2023, the Company's liquidation process was opened.

⁷⁾ PZU FIZ Sektora Nieruchomości 2 conducts its investment activity through 30 (consolidated) subsidiary companies established under commercial law.

⁸⁾ Pekao's associate in which it holds a 38.33% stake. Consequently, the PZU Management Board recognizes that the PZU Group has significant influence over this company.

2.3 Changes in the scope of consolidation and structure of the PZU Group

Detailed accounting rules applicable to the recognition of acquisition transactions are presented in section 6.5.

2.3.1. Acquisitions of companies

2.3.1.1. Acquisition of Aura Medic Południe sp. z o.o. and its merger with Bonus-Diagnosta sp. z o.o.

On 31 March 2022, Bonus-Diagnosta sp. z o.o. acquired 7,677 shares representing 100% of the shares in the share capital of Aura Medic Południe sp. z o.o. and entitling the holder to a total of 100% of the votes at the shareholder meeting, for PLN 13 million and an additional payment of PLN 2 million (the first part of 1 million paid on 27 September 2022, the second part to be paid on 31 March 2023).

Aura Medic Południe sp. z o.o. has been consolidated since 31 March 2022.

On 31 August 2022 Bonus-Diagnosta sp. z o.o. (acquiring company) merged with Aura Medic Południe sp. z o.o. (acquired company) in accordance with Article 492 § 1 item 1 of the Commercial Company Code, i.e. through transfer of all assets of Aura Medic Południe sp. z o.o. to Bonus-Diagnosta sp. z o.o. The acquisition did not affect the PZU Group's consolidated financial statements.

2.3.1.2. Acquisition of TFI Energia

On 17 March 2022, PZU signed a preliminary agreement to acquire 100% of the shares of Towarzystwo Funduszy Inwestycyjnych Energia Spółka Akcyjna ("TFI Energia") from Polska Grupa Energetyczna Spółka Akcyjna. On 15 July 2022, after obtaining the approvals from the KNF and UOKiK, the final agreement was signed. As of 15 July 2022, TFI Energia has been PZU's subsidiary consolidated as of that date. The purchase price of the stake in TFI Energia was PLN 21 million.

On 29 September 2022, the Extraordinary Shareholder Meeting of TFI PZU adopted a resolution on the merger of TFI PZU with TFI Energia. The merger took place on 2 November 2022 and had no impact on the PZU Group's consolidated financial statements.

2.3.1.3. Acquisition of Centrum Medycznego Nowa 5 sp. z o.o.

On 30 December 2022, PZU Zdrowie acquired 70 shares constituting 100% of the share capital of Centrum Medyczne Nowa 5 sp. z o.o. and entitling to a total of 100% of votes at the shareholder meeting for PLN 8 million. Centrum Medyczne Nowa 5 sp. z o.o. has been consolidated as of 30 December 2022.

2.3.1.4. Settlement of acquisitions

The PZU Group made the final settlement of the acquisition, applying the principles of IFRS 3 Business Combinations as of the dates of obtaining control.

The allocation process of the share purchase prices was carried out based on accounting data:

- Aura Medic Południe sp. z o.o. – as at 31 March 2022;
- TFI Energia – as at 15 July 2022;
- Centrum Medyczne Nowa 5 sp. z o.o. – as at 31 December 2022.

The consolidated financial statements contain the final fair value of the assets and liabilities acquired.

During the goodwill calculation:

- intangible assets not carried thus far in TFI Energia's financial statements were recognized;
- fair value measurement of assets and liabilities was performed;

- no contingent liabilities requiring recognition were identified;
- no potential indemnification assets requiring recognition were identified.

The tables below present the purchase price allocation of the acquisition of medical companies.

Value of acquired net assets	Aura Medic Południe sp. z o.o. Final settlement	TFI Energia Final settlement	Centrum Medyczne Nowa 5 sp. z o.o. Final settlement
Assets	3	27	7
Intangible assets	-	9	-
Property, plant and equipment	2	-	5
Receivables	1	-	1
Cash and cash equivalents	-	18	1
Liabilities	1	3	6
Other liabilities	1	3	6
Value of acquired net assets	2	24	1

Calculated goodwill / gain from a bargain purchase	Aura Medic Południe sp. z o.o. Final settlement	TFI Energia Final settlement	Centrum Medyczne Nowa 5 sp. z o.o. Final settlement
Payment transferred at the date of acquisition	13	21	8
Additional payment obligation ¹⁾	2	-	-
Net value of identifiable assets	(2)	(24)	(1)
Goodwill / (gain from a bargain purchase)	13	(3)	7

¹⁾ On 27 September 2022, Bonus-Diagnosta sp. z o.o. paid PLN 1 million, the second part, also in the amount of PLN 1 million, will be paid on 31 March 2023.

Goodwill will not reduce taxable income.

The determination of the fair value of the acquired assets and liabilities and the identification and recognition of the acquired intangible assets was carried out based on the available information and best estimates as at the date of preparation of the consolidated financial statements.

No differences were identified between the fair value of assets and liabilities and their book values, as recognized in the financial statements of the acquired companies.

Financial data of acquired companies

The table below shows the financial data of the companies acquired in 2022 included in the consolidated profit and loss account. The data was prepared in accordance with IFRS and relates to the period when these companies were under the control of the PZU Group.

Data from the consolidated profit and loss account	
Other operating income	7
Other operating expenses	(6)
Operating profit	1
Profit before tax	1
Income tax	-
Net profit, including:	1
- profit attributable to the equity holders of the Parent Company	1
- profit (loss) attributed to holders of non-controlling interest	-

Consolidated profit and loss account including acquired companies

The following table presents the profit and loss account of the PZU Group including the financial data of acquired subsidiaries calculated as if the acquisition date for all mergers carried out during the year was the beginning of the year.

Consolidated profit and loss account	1 January – 31 December 2022
Gross written premiums	26,710
Reinsurers' share in gross written premium	(1,695)
Net written premiums	25,015
Movement in net provision for unearned premiums	(718)
Net earned premiums	24,297
Revenue from commissions and fees	5,136
Interest income calculated using the effective interest rate	18,626
Other net investment income	(384)
Result on derecognition of financial instruments and investments	(492)
Movement in allowances for expected credit losses and impairment losses on financial instruments	(3,271)
Net movement in fair value of assets and liabilities measured at fair value	704
Other operating income	1,913
Claims, benefits and movement in technical provisions	(16,894)
Reinsurers' share in claims, benefits and movement in technical provisions	1,352
Net insurance claims and benefits	(15,542)
Fee and commission expenses	(1,449)
Interest expenses	(4,767)
Acquisition expenses	(3,903)
Administrative expenses	(7,575)
Other operating expenses	(5,663)
Operating profit	7,630
Share of the net financial results of entities measured by the equity method	(25)
Profit before tax	7,605
Income tax	(2,346)
Net profit, including:	5,259
- profit attributable to the equity holders of the Parent Company	3,374
- profit (loss) attributed to holders of non-controlling interest	1,885

2.3.2. Sales of companies

On 30 August 2022, PZU Pomoc SA entered into an agreement to sell 36,000 shares (all shares held by PZU Pomoc) in GSU Pomoc Górniczy Klub Ubezpieczonych SA for a total price of PLN 649 thousand. The registration of the transfer of the shares in the register of shareholders of GSU Pomoc Górniczy Klub Ubezpieczonych SA was made on 7 September 2022. As of that date, GSU Pomoc Górniczy Klub Ubezpieczonych SA ceased to be an affiliate of the PZU Group.

2.3.3. Completed liquidation of companies

On 5 January 2022, Aquaform Romania SRL was deleted from the register. The decision became final on 20 January 2022. Aquaform Badprodukte GmbH in Liquidation was deregistered on 9 September 2022. The decision became final on 23 September 2022.

The liquidation did not affect the consolidated financial statements of the PZU Group.

2.4 Non-controlling interests

2.4.1. Accounting policy

Non-controlling interests constitute that part of capital in a subsidiary that is not directly or indirectly attributable to the parent company. As at the date of acquisition of control, non-controlling interests are measured at the at the non-controlling interest's proportionate share in the fair value of the subsidiary's identifiable net assets. As at the subsequent balance sheet dates, the value of non-controlling interests is updated by the value of comprehensive income attributable to non-controlling interests.

2.4.2. Quantitative data

The table below presents subsidiaries with certain non-controlling interest (at present or in the past):

Name of the entity	31 December 2022	31 December 2021
Pekao ¹⁾	79.98%	79.98%
Alior Bank ²⁾	68.07%	68.07%
Przedsiębiorstwo Usług Medycznych PROELMED sp. z o.o.	43.00%	43.00%
Sanatorium Uzdrowiskowe "Krystynka" sp. z o.o.	0.91%	0.91%
UAB PZU Lietuva Gyvybes Draudimas	0.66%	0.66%
Balta	0.00% ³⁾	0.00% ³⁾

¹⁾ As a result, PZU also holds non-controlling interests in Pekao's subsidiaries listed in the table in section 2.2.

²⁾ As a result, PZU also holds non-controlling interests in Alior Bank's subsidiaries listed in the table in section 2.2.

³⁾ As at 31 December 2022 PZU is the holder of 100% of Balta's shares. As at 31 December 2021, Balta's shareholder base included one minority shareholder holding 1 share.

Carrying amount of non-controlling interests	31 December 2022	31 December 2021
Pekao Group	18,184	19,028
Alior Bank Group	4,078	3,885
Other	1	1
Total	22,263	22,914

Both Pekao and Alior Bank conduct operations primarily in the territory of Poland. Presented below is condensed financial information for the Pekao Group and the Alior Bank Group included in the consolidated financial statements (without consolidation eliminations). The data of the Pekao Group and the Alior Bank Group incorporate the effect of adjustments resulting from the measurement of assets and liabilities to fair value as at the date control was acquired and their subsequent amortization over time.

Assets	Pekao Group		Alior Bank Group	
	31 December 2022	31 December 2021	31 December 2022	31 December 2021
Goodwill	693	693	-	-
Intangible assets	2,009	2,129	390	426
Deferred tax assets	1,572	1,650	1,458	1,352
Other assets	111	52	48	39
Property, plant and equipment	1,706	1,979	744	755
Entities measured by the equity method	48	44	-	-
Assets securing liabilities	930	846	41	131
Assets held for sale	14	14	2	-
Loan receivables from clients	155,174	156,692	57,095	57,907
Financial derivatives	15,369	8,007	544	272
Investment financial assets	84,829	69,781	17,162	15,992
Measured at amortized cost	67,167	46,736	7,195	6,578
Measured at fair value through other comprehensive income	16,594	22,372	9,896	9,265
Measured at fair value through profit or loss	1,068	673	71	149
Receivables	5,976	3,653	2,663	2,215
Cash and cash equivalents	12,681	4,967	2,551	3,748
Total assets	281,112	250,507	82,698	82,837

Equity and liabilities	Pekao Group		Alior Bank Group	
	31 December 2022	31 December 2021	31 December 2022	31 December 2021
Equity				
Equity attributable to equity holders of the Parent	22,736	23,791	5,991	5,708
Share capital	263	263	1,306	1,306
Other capital	18,828	19,402	4,229	4,658
Retained earnings	3,645	4,126	456	(256)
Non-controlling interest	12	12	-	-
Total equity	22,748	23,803	5,991	5,708
Liabilities				
Subordinated liabilities	2,789	2,761	1,164	1,347
Liabilities on the issue of own debt securities	10,338	5,356	752	584
Liabilities to banks	7,450	7,040	270	462
Liabilities to clients under deposits	208,696	194,260	70,025	71,489
Derivatives	18,698	10,191	1,935	1,224
Other liabilities	9,023	6,240	2,274	1,732
Provisions	1,347	831	285	290
Deferred tax liability	23	25	2	1
Total liabilities	258,364	226,704	76,707	77,129
Total equity and liabilities	281,112	250,507	82,698	82,837

Consolidated profit and loss account for the period from 1 January to 31 December 2022	PZU Group	Elimination of Pekao's data	Elimination of Alior Bank's data	Elimination of consolidation adjustments	PZU Group without Pekao and Alior Bank
Gross written premiums	26,710	-	-	28	26,738
Reinsurers' share in gross written premium	(1,695)	-	-	-	(1,695)
Net written premiums	25,015	-	-	28	25,043
Movement in net provision for unearned premiums	(718)	-	-	9	(709)
Net earned premiums	24,297	-	-	37	24,334
Revenue from commissions and fees	5,136	(3,439)	(1,588)	154	263
Interest income calculated using the effective interest rate	18,626	(11,624)	(5,354)	189	1,837
Other net investment income	(384)	214	378	(23)	185
Result on derecognition of financial instruments and investments	(492)	20	(40)	-	(512)
Movement in allowances for expected credit losses and impairment losses on financial instruments	(3,271)	2,013	1,075	1	(182)
Net movement in fair value of assets and liabilities measured at fair value	704	(62)	(419)	-	223
Other operating income	1,896	(423)	(183)	61	1,351
Claims, benefits and movement in technical provisions	(16,894)	-	-	(4)	(16,898)
Reinsurers' share in claims, benefits and movement in technical provisions	1,352	-	-	-	1,352
Net insurance claims and benefits	(15,542)	-	-	(4)	(15,546)
Fee and commission expenses	(1,449)	644	815	(11)	(1)
Interest expenses	(4,767)	2,871	1,745	(43)	(194)
Acquisition expenses	(3,903)	-	-	(200)	(4,103)
Administrative expenses	(7,575)	4,046	1,611	(141)	(2,059)
Other operating expenses	(5,646)	2,825	885	(20)	(1,956)
Operating profit (loss)	7,630	(2,915)	(1,075)	-	3,640
Share of the net financial results of entities measured by the equity method	(25)	(5)	-	-	(30)
Profit (loss) before tax	7,605	(2,920)	(1,075)	-	3,610
Income tax	(2,346)	1,170	360	-	(816)
Net profit (loss)	5,259	(1,750)	(715)	-	2,794

Consolidated profit and loss account for the period from 1 January to 31 December 2021	PZU Group	Elimination of Pekao's data	Elimination of Alior Bank's data	Elimination of consolidation adjustments	PZU Group without Pekao and Alior Bank
Gross written premiums	25,080	-	-	39	25,119
Reinsurers' share in gross written premium	(1,300)	-	-	-	(1,300)
Net written premiums	23,780	-	-	39	23,819
Movement in net provision for unearned premiums	(548)	-	-	(6)	(554)
Net earned premiums	23,232	-	-	33	23,265
Revenue from commissions and fees	4,738	(3,230)	(1,397)	157	268
Interest income calculated using the effective interest rate	9,782	(5,702)	(2,883)	133	1,330
Other net investment income	418	(424)	195	(5)	184
Result on derecognition of financial instruments and investments	407	(41)	(27)	-	339
Movement in allowances for expected credit losses and impairment losses on financial instruments	(1,849)	785	1,049	-	(15)
Net movement in fair value of assets and liabilities measured at fair value	797	(39)	(410)	-	348
Other operating income	1,602	(285)	(192)	68	1,193
Claims, benefits and movement in technical provisions	(16,130)	-	-	(1)	(16,131)
Reinsurers' share in claims, benefits and movement in technical provisions	399	-	-	-	399
Net insurance claims and benefits	(15,731)	-	-	(1)	(15,732)
Fee and commission expenses	(1,194)	550	651	(8)	(1)
Interest expenses	(418)	205	167	(16)	(62)
Acquisition expenses	(3,572)	-	-	(153)	(3,725)
Administrative expenses	(6,826)	3,634	1,458	(139)	(1,873)
Other operating expenses	(3,917)	1,538	564	(69)	(1,884)
Operating profit (loss)	7,469	(3,009)	(825)	-	3,635
Share of the net financial results of entities measured by the equity method	(15)	(2)	-	-	(17)
Profit (loss) before tax	7,454	(3,011)	(825)	-	3,618
Income tax	(2,020)	828	306	-	(886)
Net profit (loss)	5,434	(2,183)	(519)	-	2,732

Statement of comprehensive income	Pekao Group		Alior Bank Group	
	1 January – 31 December 2022	1 January – 31 December 2021	1 January – 31 December 2022	1 January – 31 December 2021
Net profit	1,750	2,183	715	519
Other comprehensive income	(1,675)	(2,966)	(432)	(1,122)
Subject to subsequent transfer to profit or loss	(1,619)	(3,012)	(420)	(1,150)
Valuation of debt instruments	(615)	(1,226)	(129)	(92)
Measurement of loan receivables from clients	(5)	(38)	-	-
Net cash flow hedges	(999)	(1,748)	(291)	(1,060)
Foreign exchange translation differences	-	-	-	2
Not to be transferred to profit or loss in the future	(56)	46	(12)	28
Valuation of equity instruments measured at fair value through other comprehensive income	(48)	7	(12)	28
Actuarial gains and losses related to employee provisions	(8)	39	-	-
Total net comprehensive income	75	(783)	283	(603)

Cash flow statement	Pekao Group		Alior Bank Group	
	1 January – 31 December 2022	1 January – 31 December 2021	1 January – 31 December 2022	1 January – 31 December 2021
Net cash flows from operating activities	19,205	1,848	340	3,377
Net cash flows from investing activities	(15,814)	1,751	(1,423)	(479)
Net cash flows from financing activities	4,294	(3,379)	(163)	(1,546)
Total net cash flows	7,685	220	(1,246)	1,352

Dividend-related information	Pekao Group		Alior Bank Group	
	1 January – 31 December 2022	1 January – 31 December 2021	1 January – 31 December 2022	1 January – 31 December 2021
Date of ratifying the dividend	15 June 2022	11 June 2021	-	-
Record date	25 July 2022	10 September 2021	-	-
Dividend payment date	4 August 2022	29 September 2021	-	-
Dividend per share (PLN)	4.30	3.21	-	-
Dividend due to the PZU Group	226	169	-	-
Dividend due to non-controlling shareholders	903	674	-	-

3. Shareholder structure

PZU's shareholder structure, taking into consideration the shareholders with at least 5% of the votes at the PZU Shareholder Meeting is as follows:

31 December 2022

No.	Shareholder's name	Number of shares and votes at the Shareholder Meeting	Percentage held in the share capital and in the total number of votes at the Shareholder Meeting
1	State Treasury	295,217,300	34.1875%
2	Funds managed by Nationale Nederlanden Powszechnie Towarzystwo Emerytalne Spółka Akcyjna ¹⁾	49,223,000	5.7003%
3	Other shareholders	519,082,700	60.1122%
Total		863,523,000	100.0000%

¹⁾ Number of shares held by funds at the Extraordinary Shareholder Meeting of PZU held on 1 September 2022.

31 December 2021

No.	Shareholder's name	Number of shares and votes at the Shareholder Meeting	Percentage held in the share capital and in the total number of votes at the Shareholder Meeting
1	State Treasury	295,217,300	34.1875%
2	Funds managed by Nationale Nederlanden Powszechnie Towarzystwo Emerytalne Spółka Akcyjna ¹⁾	45,167,000	5.2305%
3	Other shareholders	523,138,700	60.5820%
Total		863,523,000	100.0000%

¹⁾ Number of shares held by funds at the Extraordinary Shareholder Meeting of PZU held on 12 October 2021.

Information on the number of shares taken into account in the calculation of earnings per share is presented in section 27.

Transactions with material blocks of PZU shares

In 2022 no significant changes occurred in PZU's shareholder structure.

On 5 January 2023, PZU received a notification from Powszechnie Towarzystwo Emerytalne Allianz Polska SA regarding an increase in the share of PZU's share capital and total number of votes above 5% in total by funds managed by Powszechnie Towarzystwo Emerytalne Allianz Polska SA, Allianz Polska Otwarty Fundusz Emerytalny (Open-ended Pension Fund), Allianz Polska Dobrowolny Fundusz Emerytalny (Voluntary Pension Fund) and Drugi Allianz Polska Otwarty Fundusz Emerytalny, which hold a total of 48,183,212 PZU shares, representing 5.5798% of the share capital and entitling to 5.5798% of votes at the Shareholder Meeting.

4. Key management – Management Board and Group Directors

4.1 Management Board of the Parent Company

From 1 January 2022, the PZU Management Board consisted of the following persons:

- Beata Kozłowska-Chyła – President of the PZU Management Board;
- Ernest Bejda – Member of the PZU Management Board;
- Małgorzata Kot – Member of the PZU Management Board;
- Krzysztof Kozłowski – Member of the PZU Management Board;
- Tomasz Kulik – Member of the PZU Management Board;

- Maciej Rapkiewicz – Member of the PZU Management Board;
- Małgorzata Sadurska – Member of the PZU Management Board;
- Krzysztof Szypuła – Member of the PZU Management Board.

On 4 February 2022, Krzysztof Szypuła tendered his resignation as a PZU Management Board Member.

On 27 April 2022, PZU's Supervisory Board passed a resolution appointing Piotr Nowak to PZU's Management Board, entrusting him with the position of Member of PZU's Management Board. The appointment was effective 28 April 2022 for a joint term of office covering three full financial years 2020–2022.

On 16 December 2022, the PZU Supervisory Board appointed, effective 1 January 2023, the PZU Management Board for another joint term of office covering three full financial years 2023–2025. The following persons were appointed to the Management Board for the new term of office:

- Beata Kozłowska-Chyła – President of the PZU Management Board;
- Ernest Bejda – Member of the PZU Management Board;
- Małgorzata Kot – Member of the PZU Management Board;
- Krzysztof Kozłowski – Member of the PZU Management Board;
- Tomasz Kulik – Member of the PZU Management Board;
- Piotr Nowak – Member of the PZU Management Board;
- Maciej Rapkiewicz – Member of the PZU Management Board;
- Małgorzata Sadurska – Member of the PZU Management Board.

As of the date of signing the consolidated financial statements, the composition of the Management Board had not changed.

4.2 PZU Group Directors

From 1 January 2022, the following persons were PZU Group Directors:

- Aleksandra Agatowska (PZU);
- Krzysztof Kozłowski (PZU Życie);
- Bartłomiej Litwińczuk (PZU);
- Dorota Macieja (PZU).

Krzysztof Szypuła took over the position of PZU Group Director on 4 February 2022, a position he held until 31 December 2022.

As of 15 April 2022, Małgorzata Sadurska (at PZU Życie) and Andrzej Jaworski (at PZU) were appointed as PZU Group Directors.

As of 28 April 2022, Piotr Nowak was appointed a PZU Group Director at PZU Życie.

From 28 April 2022 to 31 December 2022 the following persons were PZU Group Directors:

- Aleksandra Agatowska (PZU);
- Andrzej Jaworski (PZU);
- Krzysztof Kozłowski (PZU Życie);
- Bartłomiej Litwińczuk (PZU);
- Dorota Macieja (PZU);
- Piotr Nowak (PZU Życie);
- Małgorzata Sadurska (PZU Życie);
- Krzysztof Szypuła (PZU).

As of 1 January 2023, Sylwia Matusiak has been appointed as PZU Group Director in PZU.

As of 1 February Małgorzata Skibińska took the position of PZU Group Director in PZU and PZU Życie.

From 1 February 2023 to the date of signing the consolidated financial statements, the following persons were PZU Group Directors:

- Aleksandra Agatowska (PZU);
- Andrzej Jaworski (PZU);
- Krzysztof Kozłowski (PZU Życie);
- Bartłomiej Litwińczuk (PZU);
- Dorota Maciejka (PZU);
- Sylwia Matusiak (PZU);
- Piotr Nowak (PZU Życie);
- Małgorzata Sadurska (PZU Życie);
- Małgorzata Skibińska (PZU and PZU Życie).

5. Parent Company's Supervisory Board

From 1 January 2022, the PZU Supervisory Board consisted of the following persons:

- Paweł Mucha – Supervisory Board Chairman;
- Paweł Górecki – Supervisory Board Deputy Chairman;
- Robert Śnitko – Supervisory Board Secretary;
- Marcin Chludziński – Supervisory Board Member;
- Agata Górnicka – Supervisory Board Member;
- Robert Jastrzębski – Supervisory Board Member;
- Elżbieta Mączyńska-Ziemacka – Supervisory Board Member;
- Krzysztof Opolski – Supervisory Board Member;
- Radosław Sierpiński – Supervisory Board Member;
- Józef Wierzbowski – Supervisory Board Member;
- Maciej Zaborowski – Supervisory Board Member.

On 31 August 2022, Paweł Mucha submitted his resignation from serving in the capacity of Chairman of the PZU Supervisory Board, effective as of 31 August 2022.

On 1 September 2022, the Shareholder Meeting of PZU appointed Piotr Wachowiak as member of the PZU Supervisory Board.

On 27 October 2022, the PZU Supervisory Board appointed Robert Jastrzębski as the Chairman of the PZU Supervisory Board.

From 27 October 2022 to the date of signing the consolidated financial statements, the PZU Supervisory Board consisted of the following persons:

- Robert Jastrzębski – Supervisory Board Chairman;
- Paweł Górecki – Supervisory Board Deputy Chairman;
- Robert Śnitko – Supervisory Board Secretary;
- Marcin Chludziński – Supervisory Board Member;
- Agata Górnicka – Supervisory Board Member;
- Elżbieta Mączyńska-Ziemacka – Supervisory Board Member;
- Krzysztof Opolski – Supervisory Board Member;
- Radosław Sierpiński – Supervisory Board Member;
- Piotr Wachowiak – Supervisory Board Member;
- Józef Wierzbowski – Supervisory Board Member;
- Maciej Zaborowski – Supervisory Board Member.

6. Key accounting policies and significant estimates and judgments

The preparation of consolidated financial statements in compliance with IFRS requires the PZU Management Board to make professional judgments, estimates and assumptions that affect the adopted accounting policies and the presented values of assets, liabilities, revenues and costs.

The estimates and the related assumptions are based on historical experience and other factors which are deemed reasonable in the given circumstances, and their results provide the basis for professional judgment regarding the carrying amount of the assets and liabilities which does not follow directly from other sources.

In making judgments, estimates or assumptions, the PZU Management Board may, in significant matters, rely on the opinions of independent experts.

The actual value may differ from the estimated one. All judgments, estimates and related assumptions are revised on an ongoing basis. Their changes are recognized as described in section 6.1.

The key accounting policies, estimates and judgments used for the preparation of the consolidated financial statements are described below and in the individual notes as specified in the table below.

Item of the profit and loss account	Note	Item of the statement of financial position	Note
Gross written premiums	11	Goodwill	28
Revenue from commissions and fees	12	Intangible assets	29
Interest income calculated using the effective interest rate	13	Deferred acquisition costs	31
Result on derecognition of financial instruments and investments	15	Property, plant and equipment	32
Movement in allowances for expected credit losses and impairment losses on financial instruments	39	Investment property	33
Claims, benefits and movement in technical provisions	19	Assets securing liabilities	37
Interest expenses	21	Entities measured by the equity method	34
Acquisition expenses	22	Loan receivables from clients	35
Administrative expenses	23	Financial derivatives	36
Income tax	26	Investment financial assets	37
		Cash and cash equivalents	40
		Assets and liabilities held for sale	50
		Equity attributable to equity holders of the Parent	41
		Non-controlling interest	2.4
		Technical provisions	42
		Subordinated liabilities	43
		Liabilities on the issue of own debt securities	44
		Liabilities to banks	45
		Liabilities to clients under deposits	46
		Other liabilities	47
		Provisions	48
		Deferred tax	49

6.1 Changes in accounting policies and estimates, errors from previous years

The accounting policies are changed only if the change:

- is required by an IFRS or
- results in the financial statements providing reliable and more relevant information about the effects of transactions, other events or conditions on the PZU Group's financial position, financial performance or cash flows.

Changes in accounting policies associated with the initial application of an IFRS are accounted for in accordance with the specific transitional provisions contained in that IFRS. If a change in accounting policies is made in connection with initial application of IFRS which do not contain specific transitional provisions pertaining to such a change or the change is made voluntarily, the entity introduces such a change retrospectively. A retrospective introduction of changes in accounting policies is made by adjusting, in the statement of financial position, of the opening balance of each affected component of equity for the earliest prior period presented and by disclosing other comparative data for each period as if the changed accounting policies had always been applied.

Any items of the financial statements presented based on an estimate may need revision if changes occur in the circumstances on which the estimate was based or as a result of new information or more experience.

The effect of a change in an accounting estimate is recognized prospectively, which means that the change is applied to transactions, other events and conditions from the date of the change in estimate (the change may affect only the current period's profit or loss, or the profit or loss of both the current period and future periods).

An assumption is made that errors are corrected in the period in which they were committed (rather than discovered), hence any significant prior period errors are corrected retrospectively and the resulting differences are charged to equity.

In 2022 as well as in 2021, no corrections of errors from previous years were made.

6.2 Amendments to the applied IFRS

6.2.1 Standards, interpretations and amended standards effective from 1 January 2022

The following changes in standards were applied to the consolidated financial statements.

Standard/interpretation	Approving regulation	Comments
Amendment to IAS 16 – Property, plant and equipment: revenue obtained before putting into use	2021/1080	<p>The amendment forbids any deduction from the initial value of property, plant and equipment of amounts obtained from the sale of products produced in the course of bringing an asset to a condition where it is fit for use as intended (from test production). Such proceeds from sales and related costs will be recognized in the profit or loss.</p> <p>The change did not have any significant effect on the PZU Group's consolidated financial statements.</p>
Amendment to IAS 37 – Onerous contracts – costs of fulfillment of contractual obligations	2021/1080	<p>The amendments define what costs should be taken into account when deciding whether or not the contract in question is an onerous contract. The amendments specify that “contract performance costs” are costs directly related to the contract which include:</p> <ul style="list-style-type: none"> • incremental contract performance costs, such as direct costs of material, direct labor, and • allocation of other costs that are directly related to the performance of the contract, e.g. allocation of the depreciation charge on the items of property, plant and equipment taken advantage of to perform the contract. <p>The change did not have any significant effect on the PZU Group's consolidated financial statements.</p>

Standard/interpretation	Approving regulation	Comments
Amendments to IFRS 3	2021/1080	<p>The amendments include:</p> <ul style="list-style-type: none"> updated references to the framework (from 2018 instead of 1989); added requirement to apply IAS 37 or IFRIC 21 instead of the framework – for transactions and events falling in the scope of this standard and interpretations for the purpose of identifying liabilities taken over in a business combination; unambiguous prohibition of the recognition of contingent assets acquired in a business combination. <p>The change did not affect the PZU Group's consolidated financial statements.</p>
Amendments to IFRS 2018-2020	2021/1080	<p>The amendments pertain to:</p> <p>1st IFRS 1 – the amendment permits a subsidiary that adopts IFRS for application later than its parent and applies paragraph D16(a) of IFRS 1 to measure cumulative foreign exchange differences using the amounts reported in the parent's consolidated financial statements based on the date of the parent's transition to IFRS;</p> <p>2nd IFRS 9 – the amendment clarifies that for the purposes of the “10 percent” test, only fees paid or received between the borrower and the lender, including fees paid or received by the borrower or lender on behalf of the other party, should be considered in making a decision on the possible derecognition of a financial liability;</p> <p>3rd IFRS 16 – the amendment has removed the example concerning the reimbursement of lease improvements by the lessor (due to related uncertainties);</p> <p>4th IAS 41 – to ensure consistency with IFRS 13, the amendment has removed the requirement from paragraph 22 of IAS 41 according to which reporting entities should exclude cash flows from taxation when measuring the fair value of a biological asset using the present value method.</p> <p>The amendments did not exert a material influence on the PZU Group's consolidated financial statements.</p>

6.2.2. Standards, interpretations and amended standards not yet effective

- Approved by the regulation of the European Commission:

Name of standard/interpretation	Effective date	Approving regulation	Comments
IFRS 17 Insurance Contracts	1 January 2023	2021/2036	<p>The purpose of the standard is to establish the uniform accounting policy for all types of insurance contracts, including the reinsurance contracts held by the insurer. Introduction of consistent measurement rules should ensure comparability of financial reports between different entities, states and capital markets.</p> <p>The new standard defines insurance contract as a contract under which one entity accepts significant insurance risk from the policyholder by agreeing to compensate the policyholder if a specified uncertain future event adversely affects the policyholder. This definition is consistent in principle with the definition in IFRS 4. The scope of the standard does not cover, among others, investment contracts, product warranties, loan guarantees, catastrophe bonds and weather derivatives (contracts requiring payment based on the climatic, geological factor or another physical variable that is not specific to the party to the contract).</p> <p>The following items will have the biggest impact on the occurrence of differences from the current standard:</p> <ul style="list-style-type: none"> measurement of liabilities and assets under insurance contracts which will: <ul style="list-style-type: none"> be based on the value of the best estimate of future cash flows; take into account the time value of money; include a non-financial risk adjustment; recognition of expected profits for a group of insurance contracts over time, in proportion to the so-called units of service provided, corresponding to the level of provision by the insurance company in each reporting period; recognition of the entire expected loss on insurance contracts at the time the entity assesses that the concluded contract gives rise to a burden, which may be at the date of initial recognition of the contract or at subsequent measurement; separate (from direct business contracts) measurement of liabilities and assets for outward reinsurance.

Name of standard/ interpretation	Effective date	Approving regulation	Comments
			<p>The new standard introduces new measurement, presentation and disclosure rules for insurance contracts that will affect the shape of PZU Group's financial statements.</p> <p>The new standard requires separate presentation of outward reinsurance contracts, and insurance and inward reinsurance contracts. Within each of these two groups, separate presentation is required on the asset and liability sides of the portfolios, depending on whether the sum of the balance sheet items making up the portfolio valuation is a net asset or liability. In addition, only the aggregate item of assets and liabilities under insurance contracts will be presented on the balance sheet, without distinguishing items such as premium receivables and liabilities, DAC or technical provisions. In the income statement, the result from insurance will be shown broken down into income from insurance contracts and expense from insurance contracts, as well as the result from outward reinsurance contracts. Elements such as written premium will not be presented. The standard also requires quantitative and qualitative disclosures, with particular emphasis on the expert assessments used and the entity's risk profile. More detailed information on the implementation of IFRS 17 in the PZU Group is presented in section 6.3.</p>
Amendments to IAS 1 – Presentation of Financial Statements	1 January 2023	2022/357	<p>In accordance with the amendments, the entity will be obligated to disclose material accounting policy information rather than significant accounting principles (as previously). The amendment contains examples of identification of material accounting policies and stipulates that an accounting policy may be material due to its nature, even if the figures are immaterial. An accounting policy is material if the users of the financial statements need it to understand other material information in such statements. Disclosure of immaterial accounting policies may not obscure material accounting policies.</p> <p>The amendment will not affect the PZU Group's consolidated statements to any significant extent.</p>
Amendments to IAS 8 – Accounting Policies, Changes in Accounting Estimates and Errors	1 January 2023	2022/357	<p>The amendments to IAS 8 comprise:</p> <ul style="list-style-type: none"> • replacement of the definition of a change in estimates with a definition of estimates. In accordance with the new definition, estimates are “monetary amounts in financial statements that are subject to measurement uncertainty”; • explanation that a change in the estimate resulting from new information or new events is not a correction of error. In addition, the effects of a change in input data or measurement technique applied to determine the estimate are changes in estimates, unless they follow from a correction of errors of previous periods; • clarification that a change in an accounting estimate may affect only the current period's profit or loss, or the profit or loss of both the current period and future periods. The effect of the change relating to the current period is recognized as income or expense in the current period. The effect, if any, on future periods is recognized as income or expense in those future periods. <p>The amendment will not affect the PZU Group's consolidated statements to any significant extent.</p>
Amendment to IAS 12 – Income Taxes	1 January 2023	2022/1392	<p>According to the amendment, the exemption specified in IAS 12.15(b) for the initial recognition of a deferred tax asset or liability will not apply to transactions in which both taxable and deductible temporary differences arise, resulting in the need to recognize a deferred tax asset and liability at the same time (e.g. in the case of lease transactions).</p> <p>The amendment applies to the transactions occurring on or after the commencement date of the earliest comparative period presented in the financial statements.</p> <p>The amendment will not affect the PZU Group's consolidated statements to any significant extent.</p>

- Not approved by the European Commission:

Name of standard/interpretation	Date of issue by IASB	Effective date (according to IASB)	Comments
Amendment to IAS 1 – classifying liabilities as current and non-current	23 January 2020	1 January 2023	<p>The amendments specify that the conditions which exist at the end of the reporting period are those which will be used to determine if a right to defer settlement of a liability exists and also that the intentions or expectations of an entity regarding the willingness to use the possibility of deferring a liability are not relevant for the classification.</p> <p>The amendments will not exert a material influence on the PZU Group’s consolidated financial statements.</p>
Amendment to IFRS 16 – Leases	22 September 2022	1 January 2024	<p>The amendment requires that when measuring lease liabilities arising from a leaseback, the seller (lessee) should not recognize any gain or loss related to the retained right of use.</p> <p>The amendment will not affect the PZU Group’s consolidated financial statements to any significant extent.</p>

In summary, in the opinion of the PZU Group, the introduction of the above standards and interpretations (except for IFRS 17) will have no material effect on the accounting policies applied by the PZU Group.

6.3 Implementation of IFRS 17 in PZU Group

On 18 May 2017, the IASB issued IFRS 17 Insurance Contracts, which replaced the current IFRS 4 – Insurance Contracts, effective until the end of 2022.

The aim of the new standard is to introduce completely new, uniform principles for the measurement of insurance contracts, ensuring greater comparability of financial statements between different insurers, as well as providing a number of new disclosures for users of the financial information.

IFRS 17 introduces new principles for the recognition, measurement, presentation and disclosure of insurance contracts, reinsurance contracts, as well investment contracts with discretionary participation features. The model for the measurement of a group of contracts in accordance with IFRS 17 is based on estimates of the present value of future fulfilment cash flows related to future and past service allocated to the group, and on the contractual service margin representing unearned profit.

The most important portion of operating profit within the PZU Group's business of insurance is the insurance service result. In accordance with IFRS 17, the insurance service result covers:

- the amount of insurance revenue reflecting the consideration to which the PZU Group is entitled in exchange for services provided in the period and
- the insurance service expenses, which comprises incurred claims, amortization of insurance acquisition cash flows, changes that relate to past service, and losses on groups of onerous contracts.

Detailed accounting and estimates applied to measure insurance contracts and reinsurance contracts are presented in Section 6.3.2.

6.3.1. The estimated effect of IFRS 17 implementation on consolidated equity of the PZU Group

The estimated effect of IFRS 17 implementation on consolidated equity of the PZU Group	1 January 2022
Total equity, per IFRS 4	39,994
Equity attributable to equity holders of the Parent	17,080
Other funds, incl. accumulated other comprehensive income	14,429
Accumulated, non-allocated result	2,651
Non-controlling interest	22,914
The effect of IFRS 17 implementation on equity	5,115
Equity attributable to equity holders of the Parent	5,115
Other funds, incl. accumulated other comprehensive income	(770)
Accumulated, non-allocated result	5,885
Non-controlling interests	-
Total equity, per IFRS 17	45,109
Equity attributable to equity holders of the Parent	22,195
Other funds, incl. accumulated other comprehensive income	13,659
Accumulated, non-allocated result	8,536
Non-controlling interest	22,914

The estimated effect of IFRS 17 implementation on consolidated equity of the PZU Group as at 1 January 2022 amounts to PLN 5,115 million. In particular, it results from a change in approach in the valuation of liabilities under insurance and reinsurance contracts in accordance with IFRS 17. The new standard enables to recognize part of the difference in the valuation of liabilities as a value reducing accumulated other comprehensive income by PLN 770 million. This is due to declines in historical interest rates. The discount rates used at the time of initial recognition (so-called locked-in rates, which are rates from the period of the policy or of the loss event) were mostly higher than the risk-free rates as of 1 January 2022.

As at 31 December 2022, the PZU Group expects an increase in the amount of impact of IFRS 17 application on equity compared to balances as of 1 January 2022, in the range between PLN 3.5 and 4 billion. The increase results mainly from a significant increase in risk-free interest rates in 2022.

The above figures concerning the estimated effect of IFRS 17 implementation on selected consolidated equity items are of a preliminary nature, and the final effect of implementing IFRS 17 may differ from the one presented hereinabove, among other things, due to:

- ongoing adaptation of new processes concerning the preparation of figures, as well as computations, reporting, accounting, IT environment and internal control;
- the possibility of changing the assumptions and methodologies adopted for the calculations;
- lack of crystallized consistent market practice in the application of the standard.

The following table presents the key decisions made by the PZU Group in selecting an accounting policy for IFRS 17 measurement.

Choice of accounting policy	PZU Group decision	Justification
Method of determining discount curves	Curves determined in the bottom-up approach	Approach adopted for consistency with Solvency II discounting methodology
Recognition of financial income or expenses	For non-unit-linked products, financial income and expenses are divided between financial result and other comprehensive income. For unit-linked products, financial income and expenses are included in full in the financial result	The decision was made to reduce the volatility of the financial result and to keep the approach in valuing liabilities as consistent as possible with the approach used in valuing assets.
Risk adjustment for non-financial risk	Depending on the nature of the risk in question, the risk adjustment for non-financial risk is determined using the VaR method or a technique based on the cost of capital method.	The decision on the valuation method was based on the characteristics of the portfolio's risk profile, referred to in section 6.3.2.1 in order to best reflect the valuation uncertainty associated with non-financial risks.

Choice of accounting policy	PZU Group decision	Justification
Contractual service margin at the transition date	<p>In the case of life insurance, the PZU Group decided to divide contracts into groups that contain contracts concluded during the year ("annual cohorts").</p> <p>In the case of non-life insurance, the PZU Group decided to divide contracts into groups that contain contracts concluded during the quarter ("quarterly cohorts").</p>	<p>The method for valuing liabilities as of the transition date was selected based on the availability of historical data, materiality and whether the group of contracts was part of the portfolio offered for sale by the PZU Group as of the transition date. The default valuation approach used was the full retrospective approach. Only when the full retrospective approach was not feasible in practice did the PZU Group decide to use one of the simplified approaches, based on the factors indicated above. In the PZU Group, contractual service margin was recognized on less than 40% of the portfolio measured by insurance revenues.</p>
Grouping of contracts	<p>In the case of life insurance, the PZU Group has decided to divide contracts into groups that include contracts entered into during the year ("annual cohorts").</p> <p>In the case of property insurance, the PZU Group decided to divide contracts into groups that contain contracts concluded during the quarter ("quarterly cohorts").</p>	<p>PZU Group felt that for long-term life insurance contracts, the introduction of a period of less than a year would lead to excessive complexity (maintaining much more data), which would not be commensurate with the benefits. However, for non-life insurance, most of which is short-term, division into quarterly cohorts will enable a more accurate assessment of profitability in situations where tariffs change during the year.</p>
The effect of accounting estimates made in interim financial statements	<p>The PZU Group has decided to change the treatment of accounting estimates made in previous interim financial statements when applying IFRS 17 in subsequent interim financial statements and in the annual reporting period (so-called year-to-date reporting).</p>	<p>Consistency with existing IFRS 4 reporting and with reporting in other accounting standards.</p>

6.3.2. Insurance contracts and reinsurance contracts

6.3.2.1. Identification and aggregation of insurance contracts

In order to identify insurance contracts and inward reinsurance contracts that are within the scope of IFRS 17, the PZU Group verifies whether, under a given contract, the entity accepts a significant insurance risk from the policyholder and undertakes to compensate the policyholder for an adverse effect defined as an uncertain future insurable event.

For measurement purposes, insurance contracts are aggregated into so-called groups of insurance contracts. The purpose of this aggregation is to ensure that profits are recognized over time in proportion to the insurance services provided, and losses are recognized immediately when the entity assesses that the concluded contract is onerous. Offsetting profits and losses between the identified groups of insurance contracts is not allowed. Insurance contracts are grouped on initial recognition and in accordance with IFRS 17 the PZU Group does not reassess the groups in subsequent periods, unless there are grounds for derecognition as set forth in IFRS 17, related to the modification of the insurance contract, causing a new contract to be recognized. Insurance contracts are aggregated into groups of insurance contracts, taking into consideration the following three levels:

- portfolio – contracts with similar risk characterization, managed jointly;
- profitability – contracts belonging to the same profitability group – one of the three defined by IFRS 17:
 - groups of onerous contracts at initial recognition;
 - groups of contracts that at initial recognition have no significant possibility of becoming onerous subsequently;
 - groups of other contracts belonging to the portfolio,
- cohort – contracts issued no more than one year apart.

In the PZU Group, the division of the portfolio into groups of insurance contracts accounts for the aforementioned levels in the following manner:

- in terms of a portfolio:
 - based on the risk characterization of individual insurance contracts and based on existing insurance portfolio management processes;
- in terms of profitability:
 - for life insurance – at the level of a single contract, through the measurement of the said insurance contract;
 - for non-life insurance – all contracts are treated as profitable, unless facts or circumstances indicate that they are not profitable. Profitability is assessed at the level of the IFRS 17 portfolio, whereas assessment may be moved to the level of the cohort for the given quarter or year;
- in terms of a cohort:
 - it has been decided to group life insurance into annual cohorts and non-life insurance into quarterly cohorts, which allows a more accurate allocation of insurance contracts to profitability for the purposes of measuring liabilities.

An insurance contract may contain one or more components that would be within the scope of another IFRS if they were separate contracts. The analysis allows the PZU Group to find that it does not offer products with components constituting separate contracts which would be within the scope of another IFRS.

6.3.2.2. Contract boundaries

The measurement of an insurance contract covers solely the cash flows that are within the contract boundary. The contract boundary separates future cash flows related to existing insurance contracts from cash flows related to insurance contracts yet to be concluded.

The PZU Group sets the contract boundary when the PZU Group cannot compel the policyholder to pay the premiums or when the PZU Group has a substantive obligation to provide the policyholder with insurance contract services. The substantive obligation ends when:

- the entity has the practical ability to reassess the risks of the particular policyholder and, as a result, can set a price or level of benefits that fully reflects those risks (individual policyholder assessment); or
- both of the following criteria are satisfied:
 - the entity has the practical ability to reassess the risks of the portfolio of insurance contracts that contains the contract and, as a result, can set a price or level of benefits that fully reflects the risk of that portfolio (portfolio assessment); and
 - the pricing of the premiums up to the date when the risks are reassessed does not take into account the risks that relate to periods after the reassessment date.

In the PZU Group, the approach to the contract boundary, with few exceptions, is consistent with the end of the contract indicated in the insurance contract as a legal document. The exceptions are contract boundaries applied in life insurance riders. From a formal point of view, they are mostly renewable annual contracts. For the purpose of measurement in accordance with IFRS 17, riders are recognized and measured along with the host contracts, provided the assessment is not, that the rider constitutes a separate insurance contract and should therefore be separated from the host contract. Riders are modelled with account taken of renewals, and contract boundaries of riders correspond to the boundaries of host contracts. In case of unit-linked insurance, in products with regular premiums, for an IFRS 17 measurement, the contract boundary falls when the Group PZU no longer has a substantive obligation to provide the policyholder with insurance contract services, which in practice involves the recognition of all forecast cash flows in the future.

6.3.2.3. Measurement methods

Under IFRS 17, insurance contracts are measured using the following methods:

- GMM – general measurement model;

In this model, the total insurance liability is computed as a sum of:

- the fulfilment cash flows, which comprise: (1) estimates of future cash flows within the contract boundary; (2) an adjustment to reflect the time value of money and the financial risks related to the future cash flows, to the extent that the financial risks are not included in the estimates of the future cash flows; (3) a risk adjustment for non-financial risk, which reflects the compensation for bearing the uncertainty, about the amount and timing of the cash flows that arise from non-financial risk; and
- the contractual service margin representing unearned risk; contractual service margin is sensitive to changes in estimates of cash flows, resulting from changed non-economic assumptions. Contractual service margin cannot be negative – any losses on the contracts are recognized immediately in the financial result;

- PAA – Premium allocation approach:

The premium allocation approach is a simplified approach, where the measurement of the liability for remaining coverage is analogous with the unearned premiums mechanism according to IFRS 4 (without a separate presentation of risk adjustment for non-financial risk or contractual service margin), whereas the liability for incurred claims is measured in the same manner as for the general measurement model. PAA is applied for contracts which meet relevant eligibility criteria at initial recognition, allowing the application of the simplifications referred to in paragraphs 53 or 69 IFRS 17:

- the entity reasonably expects that such simplification would produce a measurement of the liability for remaining coverage for the group of contracts that would not differ materially from the one that would be produced applying the GMM;
- the coverage period for each contract in the group is one year or less.

Groups of insurance contracts may be valued using the PAA method despite not meeting the above criteria, provided that the impact on the PZU Group's consolidated financial statements is deemed immaterial.

- VFA – variable fee approach:

The liability measurement method used for IFRS 17 reporting of insurance contracts with direct participation features, is analogous to GMM, with the difference being that changes in the CSM in subsequent periods also include the impact of changing economic assumptions, and not just operational assumptions. The variable fee approach is used solely to measure selected products, after eligibility criteria are assessed, at initial recognition. The PZU Group applies VFA to unit-linked products which meet the eligibility criteria (the PZU Group assesses all its unit-linked products to meet the VFA eligibility criteria).

In the PZU Group, the majority of non-life insurance and reinsurance contracts meet the criteria for applying the simplified premium allocation approach – PAA. Life insurance contracts are measured using the general model (GMM), and insurance contracts with direct participation features are measured by the PZU Group using VFA.

Liability for remaining coverage, excluding the loss component

Measurement on initial recognition

Liability for remaining coverage corresponding to an entity's obligation to:

- investigate and pay valid claims under existing insurance contracts for insured events that have not yet occurred (i.e., the obligation that relates to the unexpired portion of the insurance coverage); and
- pay amounts under existing insurance contracts that are not included in the aforementioned point and that relate to:
 - insurance contract services not yet provided (i.e., the liabilities that relate to the future provision of insurance contract services); or
 - any investment components or other amounts that are not related to the provision of insurance contract services and that have not been transferred to the liability for incurred claims.

On initial recognition, the total insurance contract liability comprises the liability for remaining coverage, and the carrying amount is zero for non-onerous contracts.

In line with the general measurement model, as well as within the variable fee approach, on initial recognition, the liability for remaining coverage is measured as:

- the amount of cash flows from the performance of the contracts described in Section 6.3.2.4; and
- contractual service margin, representing unearned profit.

The premium allocation approach does not account for the contractual service margin, risk adjustment for non-financial risk and the adjustment to reflect the time value of money. The liability for remaining coverage on initial recognition is measured as:

- premiums received on initial recognition;
- minus any insurance acquisition cash flows as at that date, unless the entity allows and decides to recognize these payments as expenses; and
- plus or minus any amount arising from the derecognition as at that date of:
 - any assets for insurance acquisition cash flows paid before the date of initial recognition of the group of insurance contracts; and
 - any other asset or liability previously recognized for cash flows related to the group of contracts.

Subsequent measurement

After initial recognition, as at the end of each reporting period liability for remaining coverage, excluding contractual service margin, is reassessed using fulfilment cash flows concerning contracts related to the subsequent coverage period, i.e., it covers the best estimate present value of the cash flows required to fulfil the liability together with a risk adjustment for non-financial risk.

In line with the general measurement model and variable fee approach, as at the end of the reporting period, liability for remaining coverage excluding contractual service margin is computed as:

- liability for remaining coverage as at the start of the reporting period, equal to the value of the said liability as at the end of the previous reporting period;
- plus/minus estimate expected amounts related to the payments of premiums, claims and expenses which are to be incurred in the reporting period, as estimated as at the previous reporting date;
- plus/minus changes in estimates resulting from changes in assumptions relating to future services;
- plus/minus interest accreted on the present carrying amount of future cash flows and risk adjustment for non-financial risk within the reporting period, with a discount rate applied on initial recognition;
- plus/minus the remaining interest accreted using current discount rates.

In line with the premium allocation approach, as at the end of the reporting period, the liability for remaining coverage is measured as:

- the value of the said liability as at the start of the period;
- plus the premiums received in the period;
- minus insurance acquisition cash flows;
- plus any amounts relating to the amortization of insurance acquisition cash flows recognized as an expense in the reporting period;
- plus any adjustment to a financing component, if applied;
- minus the amount recognized as insurance revenue for services provided in that period; and
- minus any investment component paid or transferred to the liability for incurred claims.

In the light of the foregoing, the PZU Group recognizes income and expenses for the following changes in the carrying amount of the liability for remaining coverage:

- insurance revenue — for the reduction in the liability for remaining coverage because of services provided in the period;
- insurance service expenses — for losses on groups of onerous contracts, and reversals of such losses;
- insurance finance income or expenses — for the effect of the time value of money and the effect of financial risk.

Contractual service margin

Measurement on initial recognition

The contractual service margin is determined for non-onerous contracts at the initial recognition and reflects unearned profits. It is then released as profit over the life of the contract (group of contracts).

Contractual service margin may be defined as expected cash flows minus cash flows within the contract boundary, adjusted for non-financial risk and time value of money.

Contractual service margin is not determined when the premium allocation approach is applied. In line with the general measurement model and variable fee approach, the PZU Group measures contractual service margin on initial recognition of a group of contracts at an amount that results in no income or expenses arising from:

- the initial recognition of an amount for the fulfilment cash flows;
- any cash flows arising from the contracts in the group at that date;
- the derecognition at the date of initial recognition of:
 - any asset for insurance acquisition cash flows;
 - any other asset or liability previously recognized for cash flows related to the group of contracts.

As a rule, contractual service margin may not be used to recognize losses over time. Loss identified on recognition of a group of contracts is recognized in the financial result at an amount corresponding to the excess expected future cash flows over the expected future flows accounting for non-financial risk (through risk adjustment for non-financial risk). This approach is the opposite of the way to recognize the expected profit from insurance business, which is distributed over time in proportion to the insurance service provided.

Subsequent measurement

Contractual service margin as at the end of the reporting period reflects the profit in the group of insurance contracts that has not yet been recognized in the financial result because it relates to future service to be provided under the contracts in the group.

As at the end of the reporting period, the carrying amount of the contractual service margin for a group of insurance contracts without direct participation features, measured in line with the general measurement model, equals the carrying amount as at the start of the reporting period adjusted for:

- the effect of any new contracts added to the group;
- interest accreted on the carrying amount of the contractual service margin during the reporting period, measured at the discount rates on initial recognition (so-called locked-in rates);
- the changes in fulfilment cash flows relating to future service, except to the extent that:
 - such increases in the fulfilment cash flows exceed the carrying amount of the contractual service margin, giving rise to a loss; or
 - such decreases in the fulfilment cash flows are allocated to the loss component of the liability for remaining coverage;
- the effect of any currency exchange differences on the contractual service margin; and
- the amount recognized as insurance revenue because of the transfer of insurance contract services in the period, determined by the allocation of the contractual service margin remaining at the end of the reporting period (before any allocation) over the current and remaining coverage.

As at the end of each reporting period, the carrying amount of the contractual service margin for a group of insurance contracts with direct participation features, measured in line with the variable fee approach, equals the carrying amount as at the start of the reporting period adjusted for:

- the effect of any new contracts added to the group;
- the change in the amount of the entity's share of the fair value of the underlying items;
- the changes in fulfilment cash flows relating to future service;

- the effect of any currency exchange differences on the contractual service margin; and
- the amount recognized as insurance revenue because of the transfer of insurance contract services in the period, determined by the allocation of the contractual service margin remaining at the end of the reporting period (before any allocation) over the current and remaining coverage.

Loss component

Measurement on initial recognition

The loss component is part of the liability for remaining coverage and represents losses from the group of onerous contracts. Initial loss is separate in the financial result, and, adjusted in subsequent periods for further losses, reversal of losses, and release over time, so that the loss component for a group of contracts is zero until the end of the coverage period of a group of contracts.

The loss component is set regardless of the measurement model applied (i.e., it is set for the general measurement model, variable fee approach, and the premium allocation approach).

An insurance contract is onerous at the date of initial recognition if the fulfillment cash flows (adjusted for non-financial risk and the time value of money) allocated to the contract, any previously recognized insurance acquisition cash flows and any cash flows arising from the contract at the date of initial recognition in total are a net outflow, recognized in the financial result.

For the purpose of the premium allocation approach, if at any time during the coverage period, facts and circumstances indicate that a group of insurance contracts is onerous, the entity establishes a loss component which can be expressed as the difference between the carrying amount of the liability for remaining coverage computed in line with PAA and the fulfillment cash flows that relate to remaining coverage of the group in line with the general model.

Subsequent measurement

For the general measurement model and the variable fee approach, an insurance contract or group of insurance contracts becomes onerous (or more onerous) on subsequent measurement if unfavorable changes relating to future service arising from changes in estimates of future cash flows and the risk adjustment for non) exceed the carrying amount of the contractual service margin. In this case, the PZU Group recognizes the loss in profit or loss at the amount equal to the said excess.

If on subsequent measurement, there are favorable changes relating to future service, the PZU Group recognizes profit (reversal of losses) in profit or loss to the maximum amount of the loss component. Should favorable changes in measurement exceed the value of the loss component, the PZU Group recognizes profit equal to the recognized loss component, whereas the excess is recognized as contractual service margin in profit or loss in future periods.

In the case of the premium allocation approach, the valuation of the loss component in later periods is carried out using the same calculation method as at initial recognition.

Liability for incurred claims

Measurement on initial recognition

Liability for incurred claims corresponds to an entity's obligation to:

- investigate and pay valid claims for insured events that have already occurred, including events that have occurred but for which claims have not been reported, and other incurred insurance expenses; and
- pay amounts that are not included in the aforementioned point and that relate to:
 - insurance contract services that have already been provided; or
 - any investment components or other amounts that are not related to the provision of insurance contract services and that are not in the liability for remaining coverage.

In all measurement models, on initial recognition of a group of contracts, the liability for incurred claims is usually equal to zero, because no insured events have yet occurred.

The liability for incurred claims has to be established (separately for each insured event type) following a single insured event, covering the expected payment of claims for such a single insured event for which the claims have not yet been fully paid.

Liability for incurred claims covers cash flows related to the service performed as at the reporting date. The measurement of this liability is based on the same requirements concerning (1) estimates of the future cash flows; (2) discount rates; and (3) risk adjustment for non-financial risk, which also apply to the liability for remaining coverage on initial and subsequent measurement.

Subsequent measurement

For each reporting period, liability for incurred claims is measured as fulfillment cash flows related to incurred claims. This means that it covers the present value of expected estimates of future cash flows required to settle the liability for incurred claims and expenses for each insured event, along with risk adjustment for non-financial risk.

For all measurement methods, as at the end of the reporting period, the liability for incurred claims is estimated as:

- liability for incurred claims as at the start of the reporting period, equal to the liability as at the end of the previous reporting period;
- plus/minus expected cash flows related to past service;
- plus the increase in the liability for claims and expenses incurred in the period but not yet paid;
- plus/minus interest accreted on the best estimate present value of liabilities and risk adjustment for non-financial risk in the reporting period with a discount rate applied on initial recognition (so-called locked-in rate);
- plus/minus the remaining interest accreted using current discount rates.

After initial recognition, an entity recognizes income and expenses for the following changes in the carrying amount of the liability for incurred claims:

- insurance service expenses — for the increase in the liability because of claims and expenses incurred in the period, excluding any investment components;
- insurance service expenses — for any subsequent changes in fulfillment cash flows relating to incurred claims and incurred expenses; and
- insurance finance income or expenses — for the effect of the time value of money and the effect of financial risk.

For the purpose of its computations, the PZU Group has decided to recognize the values on a compound basis from the start of the year to the reporting date (Year To Date – YTD) Because of this, the “previous reporting period” referred to in the points hereinabove is, in every case, the December of the preceding year.

Assets for insurance acquisition cash flows

Prepayments understood as acquisition expenses paid before their due date and initial recognition of a contract (where payments are not within the contract boundary but are part of fulfillment cash flows following the initial recognition of a contract) are not recognized under the liability for remaining coverage (LRC) until the initial recognition of the contract; however, they are treated as part of the insurance contract assets or liabilities as assets for insurance acquisition cash flows.

If facts and circumstances indicate an asset for insurance acquisition cash flows may be impaired, at the end of each reporting period, the PZU Group:

- recognizes an impairment loss, so that the carrying amount of each asset does not exceed the expected net cash inflow for the group of insurance contracts (group-level impairment test); and
- if the asset relates to groups expected to arise from renewals of insurance contracts within a group (additional impairment test), it recognizes an impairment loss to the extent that:
 - insurance acquisition cash flows exceed the net cash inflow for the expected renewals;
 - the excess has not already been recognized as an impairment loss.

Previously recognized impairment loss is reversed in the subsequent reporting period to the extent that the impairment has improved or no longer exists. In its IFRS 17 reporting, as at 1 January 2022 and 31 December 2022, the PZU Group has recognized no asset relating to groups expected to arise from renewals of insurance contracts in a group.

6.3.2.4. Significant judgements and processes for estimation

Fulfilment cash flows

In estimating future cash flows, the PZU Group accounts for all reasonable and supportable information available without undue cost or effort. This information includes both internal and external historical data concerning claims and other measurement components, updated to reflect current expectations about future events.

Estimates of future cash flows cover all cash flows expected to arise in relation to the fulfilment of the rights and obligations arising under an insurance contract. The estimates of future cash flows:

- are within the contract boundary;
- account for all information available about the amount, timing and uncertainty of those future cash flows;
- are explicit – the entity estimates the adjustment for non-financial risk separately from the other estimates; the entity also estimates the cash flows separately from the adjustment for the time value of money and financial risk, unless the most appropriate measurement technique combines these estimates;
- reflect the perspective of the entity, provided that the estimates of any relevant market variables are consistent with observable market prices for those variables;
- are current.

Reinsurance contracts are modelled on the same basis as insurance contracts. However, taking into account the features of reinsurance contracts, on initial recognition (and similarly as at every subsequent reporting date), expected future cash flows include estimates of future cash flows from underlying insurance contracts to be issued by the holder, but which are within the boundary of reinsurance contracts issued.

Discounting of cash flows

The PZU Group uses discount rate curves determined under the bottom-up approach (IFRS 17:B80), which assumes that discount curves will be determined as liquid risk-free rate curves adjusted for the illiquidity premium resulting from the difference in the liquidity characteristics of the rates observed in the market and the liquidity characteristics of the insurance contracts. For groups of contracts established for cohorts arising after the transition date for IFRS 17 measurement (i.e., after 1 January 2022), the PZU Group applies the EIOPA methodology to establish the underlying risk-free curve. The approach to discount rate curves established for the cohorts recognized before the transition date is described in Section 6.3.3.

Risk adjustment for non-financial risk

In measuring insurance contracts, the PZU Group adjusts for non-financial risk (e.g. insurance risk, lapse risk, expense risk). The risk adjustment for non-financial risk is compensation for the uncertainty about the amount and timing of cash flows from groups of insurance contracts. Because of the different risk characterization, the risk adjustment concerning cash flows related to the future coverage period (accounted for in the liability for remaining coverage) and past coverage period (accounted for in the liability for incurred claims) is estimated separately.

The PZU Group estimates the adjustment using the methods available, including the value-at-risk method (VaR) and techniques based on the cost of capital method.

At the entity's level, the risk adjustment is established as the direct product of risk adjustments for all groups of contracts in a portfolio, not accounting for the correlation between the groups. Finally, that value serves to establish the confidence level which accounts for the correlations and diversification effects between uniform risk groups. The parameters for risk adjustment are

selected so that the final value of the risk adjustment for non-financial risk corresponds to a confidence level determined by the PZU Group as the confidence level expected for the purpose of determining non-financial risk in IFRS 17 financial reporting.

Coverage units

Contractual service margin, recognized in profit or loss for a period, is determined by the PZU Group in line with the requirements of IFRS 17 based on coverage units. For each group of insurance contracts, the PZU Group identifies coverage units based on the product characteristics, considering for each contract the quantity of the benefits provided and expected coverage period. For individual product segments, the PZU Group establishes coverage units in line with the following table:

Type of insurance	Basis of computing coverage units
Group and continued insurance	Total sum insured under the host contract and riders
Traditional insurance	In addition to annuity insurance, the total sum insured under the host contract and riders. Annual benefit for annuity insurance.
United-linked insurance	Total sum insured under the host contract and riders (fund covered)
Other insurance	Total sum insured under the host contract and riders

6.3.2.5. Consolidated profit and loss account and consolidated statement of other comprehensive income

The PZU Group presents separately in the consolidated profit and loss account and the consolidated statement of other comprehensive income:

- insurance service result, which covers:
 - insurance revenue – the consideration to which the entity expects to be entitled in exchange for services provided in the period;
 - insurance service expenses:
 - incurred claims (excluding investment components) and other incurred insurance service expenses;
 - amortization of insurance acquisition cash flows;
 - changes that relate to past service, i.e., changes in fulfilment cash flows relating to the liability for incurred claims; and
 - losses on groups of onerous contracts, and reversals of such losses;
- insurance finance income or expenses:
 - the effect of the time value of money;
 - the effect of financial risk.

In accordance with IFRS 17, the PZU Group may decide to present total insurance finance income or expenses in the profit or loss account, or to disaggregate and present them separately in the profit and loss account and in other comprehensive income for each IFRS 17 portfolio. The PZU Group has opted for disaggregation for all IFRS 17 portfolios.

6.3.2.6. Reinsurance contracts

A reinsurance contract is an insurance contract issued by one entity (the reinsurer) to compensate another entity (the holder) for claims arising from one or more insurance contracts issued by that other entity (underlying contracts).

All reinsurance contracts issued by the PZU Group transfer significant insurance risk onto the reinsurer; therefore, they are considered reinsurance contracts held within the meaning of IFRS 17, and IFRS 17 is applied for their measurement.

The PZU Group identifies, classifies, measures and presents reinsurance contracts held under the same principles as insurance contracts, with the following key exceptions:

- reinsurance contracts held are divided into three profitability groups:
 - contracts with net profit on initial recognition;
 - contracts with net expense without significant possibility of net profit following initial recognition;

- other contracts with net expense with significant possibility of net profit following the initial recognition;
- Cash flows are within the contract boundary if they arise from substantive rights and obligations that exist during the reporting period in which the entity:
 - is obliged to pay amounts to the reinsurer; or
 - has a material right to avail itself of the reinsurer's services;
- the following models are applied to measure reinsurance contracts held:
 - general measurement model (GMM);
 - premium allocation approach (PAA);
- reinsurance contracts held are measured separately from their underlying insurance contracts. The entity uses consistent assumptions to measure the estimates of the present value of the future cash flows for the group of reinsurance contracts held and the estimates of the present value of underlying insurance contracts. Apart from the consistent assumptions, the PZU Group applies the following modifications to measure the estimates of the present value of cash flows for reinsurance contracts held, compared to underlying insurance contracts:
 - the estimates of the present value of the future cash flows for the group of reinsurance contracts held include the effect of any risk of non-performance by the issuer of the reinsurance contract, including the effects of collateral and losses from disputes;
 - estimated risk adjustment for non-financial risk is determined so that it represents the amount of risk being transferred by the holder to the reinsurer;
- requirements for determining the contractual service margin on initial recognition are modified in relation to reinsurance contracts held to reflect the fact that there is no unearned profit in such groups of contracts, but instead a net cost or net gain on purchasing the reinsurance. In light of the foregoing, on initial recognition:
 - the PZU Group recognizes net cost or net gain on purchasing the group of reinsurance contracts held as a contractual service margin, measured at an amount equal to the sum of the fulfilment cash flows, the amount derecognized at that date of any asset or liability previously recognized for cash flows related to the group of reinsurance contracts held, and any cash flows arising at that date; unless
 - the net cost of purchasing reinsurance coverage relates to events that occurred before the purchase of the group of reinsurance contracts held, in which case such a cost is immediately recognized in profit or loss as an expense.

Furthermore, if losses from onerous insurance contracts are recognized on initial recognition, the PZU Group recognizes gain on reinsurance contracts held to the extent in which the reinsurance contracts held have been concluded before or at the same time as underlying contracts. If an entity may establish a loss-recovery component on initial recognition, the income related to it adjusts the initial contractual service margin;
- in respect of reinsurance contracts held, the PZU Group's consolidated statement of financial position, consolidated profit and loss account, and consolidated comprehensive income statement separately present:
 - net expenses on reinsurance contracts held:
 - allocation of reinsurance premiums – the consideration to which the reinsurer expects to be entitled in exchange for services provided in the period;
 - amounts due from reinsurers: reimbursement of claims incurred in the current period, excluding any investment components; reimbursement of expenses incurred in the current period; changes related to past service; loss recovery component and changes in assumptions (so-called unlocking) of the loss recovery component;
 - Reinsurance finance income or expenses:
 - the effect of the time value of money;
 - the effect of financial risk.

6.3.3. Transition date

The PZU Group applies IFRS 17 Insurance Contracts for the first time on 1 January 2023.

Due to the need to prepare comparative figures, 1 January 2022 is assumed as the date of transition to the new standard.

The standard allows the use of 3 methods for the purpose of measuring financial items at the transition date:

- full retrospective approach – a method in which the entity measures groups of insurance contracts as if the standard had been applied from the moment of the initial recognition for those contracts;
- modified retrospective approach – a method that allows the entity to apply simplifications to the FRA method if its full application is impracticable;
- fair value approach – a method that is permitted if the FRA method is impracticable or if the entity has decided not to use the MRA method.

The PZU Group has used all three methods depending on the availability of historical data. The full retrospective approach was applied for all groups of non-life insurance contracts, except for pre-1993 liabilities for incurred claims), for which the fair value approach was applied. The approaches applied to groups of life insurance contracts are laid out in the table below:

Agreement recognized in	Method
2019 or later	<ul style="list-style-type: none"> • Full retrospective approach for contracts other than unit-linked contracts • Fair value approach for unit-linked contracts
2015-2018	<ul style="list-style-type: none"> • Full retrospective approach for individually continued insurance contracts • Fair value approach for unit-linked contracts • Modified retrospective approach for other contracts
2014 or earlier	<ul style="list-style-type: none"> • Modified retrospective approach for individually continued and traditional insurance contracts • Fair value approach for other products

6.3.3.1. Full retrospective approach

In line with IFRS 17:C3, the PZU Group has applied the full retrospective approach unless it was impracticable. The PZU Group has determined that the application of the standard is impracticable within the meaning of paragraph 5 of International Accounting Standard 8, i.e., the application of the standard is impracticable in practice when an entity cannot apply it, despite all reasonable efforts and actions to do so. For a specific past period, an entity is not able to make changes in accounting policies or make retrospective restatements of data if:

- the effect of the retrospective approach is impossible to determine;
- retrospective application of a policy or retrospective restatement of data requires making assumptions about management's intentions during the period indicated; or
- retrospective application of rules or retrospective restatement of data requires making significant estimates, and it is impossible to objectively extract from the information in possession such information on estimates that:
 - confirm the conditions as of the date on which the values are to be recognized, valued or disclosed;
 - could be available when the financial statements for that period were approved for publication.

For those parts of the business for which it was not feasible to apply the full retrospective approach (e.g., data were not collected at the required resolution, there were changes in IT systems that made it impossible to prepare the relevant data, and there were profound changes in actuarial models that were in practice impossible to implement retrospectively), the PZU Group applied the simplifications allowed by the standard.

6.3.3.2. Simplified approaches

Where the application of the full retrospective approach has been assessed as impracticable, the PZU Group uses the modified retrospective approach or the fair value approach, and the choice of approach is made individually for each group of contracts. Factors such as the availability of historical data, materiality and whether the group of contracts belongs to the portfolio offered for sale by the PZU Group as at the transition date are taken into account in the selection.

The table below presents the simplifications allowed in IFRS 17 that the PZU Group has applied, along with a reference to the relevant provisions of IFRS 17 depending on the approach taken:

Description of the simplification	Modified retrospective approach	Fair value approach
Assessment of groups of contracts using information available at the transition date, instead of at the date the contract was concluded	C9	C21–22
Non-application of paragraph 22 to divide groups into those that do not include contracts issued more than one year apart	C10	C23
Use of historical cash flows in determining the contractual service margin	C12	n/a
Simplified calculation of risk adjustment for non-financial risks at the date of initial recognition of the group of insurance contracts	C14	n/a
Disaggregation of financial income or expenses into amounts included in profit or loss and amounts included in other comprehensive income	C18–19	C24

Modified retrospective approach

Where the application of the full retrospective approach is impracticable, IFRS 17 allows the application of a modification to such an approach – the so-called modified retrospective approach – to achieve the closest outcome to retrospective application possible. Modifications allowed by the standard cover assessments of insurance contracts or groups of insurance contracts that would have been made at the date of inception or initial recognition, estimates related to the contractual service margin or loss component, and estimates of insurance finance income or expenses.

The modified retrospective approach is applied by the PZU Group solely for the groups of contracts without direct participation features. For groups of contracts with direct participation features, for which the full retrospective approach is impracticable, the PZU Group applies the fair value approach.

In the cases stipulated in IFRS 17 and where the PZU Group has deemed the modified retrospective approach to be reasonable, the PZU Group has applied the following modifications to the full retrospective approach:

- use of historical cash flows and reliable estimates of historical cash flows to estimate future cash flows and contractual service margin or loss component as at the initial recognition of a group of contracts or group of insurance contracts without direct participation features;
- estimated adjustment for non-financial risk as at the initial recognition of a group of insurance contracts and release from risk before the transition date based on information available as at the transition date. Information used for such estimates include the calibrated adjustment for non-financial risk as at the transition date, estimated cash flows on initial recognition of the group of insurance contracts and historical data available as at the transition date;
- aggregation of groups of contracts issued more than one year apart.

In its estimations using the modified retrospective approach, the PZU Group did not apply the modifications allowed in the IFRS 17 relating to the measurement of discount rates.

In applying the modified retrospective approach, the PZU Group has used to the greatest possible extent the reasonable and supportable information available without undue cost or effort which the PZU Group would use in the full retrospective approach.

Fair value approach

The fair value approach in the transition period was applied by the PZU Group for:

- annuity and traditional products entered into before 1994 for which there are no reasonable and supportable information available without undue cost or effort that would allow computations in line with the modified retrospective approach;
- unit-linked products for which the use of MRA or FRA would entail undue cost or effort, disproportionate to the level of potential distortion of reported values, which are considered immaterial.

With respect to contracts where the fair value approach has been applied, the PZU Group determined CSM as at the transition date as the difference between the fair value of the liability for remaining coverage and cash flows in respect of liabilities measured as

at that date. In determining fair value, the PZU Group applied the requirements of IFRS 13 Fair Value Measurement, except for the lower limit for deposits at notice. This approach is of preliminary nature and may change.

The PZU Group has aggregated contracts issued more than one year apart in determining groups of insurance contracts in line with the fair value approach as at the transition date, because it did not have reasonable and supportable information allowing disaggregation into groups of contracts issued within one year.

In applying the fair value approach, the PZU Group has used reasonable and reliable information as at the transition date to:

- identify groups of insurance contracts;
- determine whether insurance contracts meet the definition of an insurance contract with direct participation features;
- identify any discretionary cash flows for insurance contracts without direct participation features.

The PZU Group applied the income method to measure the fair value of insurance contracts as at the transition date.

6.3.3.3. Discounting of cash flows

For curves defined since the end of 2015, the PZU Group uses risk-free discount rates published by EIOPA, while for years prior to the implementation of Solvency II, the PZU Group determined historical discount rate curves based on market data on bonds and an assessment of the availability of illiquid assets in the market. In applying discount rates, an assessment of the liquidity of a product's liabilities is also taken into account. The illiquidity premium is determined on the basis of market data and liquidity characteristics of each group of insurance contracts.

6.4 Consolidation rules

These consolidated financial statements for the financial year ended on 31 December 2022 include data of the parent company and all its subsidiaries after elimination of intragroup transactions.

A subsidiary is an entity that is controlled by another entity. That means that the latter simultaneously has: power over the investee, exposure or rights to variable returns from its involvement with the investee and the ability to use its power over the investee to affect the amount of the investor's returns.

Consolidation involves the combination of similar items of assets, liabilities, equity, revenue, costs and cash flows of a parent company and its subsidiaries and then elimination of the carrying amount of the parent's investment in each subsidiary and the parent's portion of equity of each subsidiary. Also, assets and liabilities, revenue, costs and cash flows relating to intra-group transactions between PZU Group entities are eliminated in full.

The financial statements of the subsidiaries are prepared for the same reporting period as the financial statements of the parent company.

Subsidiaries are consolidated from the date of obtaining control until the date cessation of control.

The rules applicable to translation of assets, liabilities and comprehensive income of foreign subsidiaries denominated in foreign currencies are presented in Section 6.6.

6.4.1. Judgments in exercising control

In order to determine whether PZU Group has rights that are sufficient to give it power, that is practical ability to direct the relevant activities unilaterally, the PZU Group analyzes among others:

- how many votes it holds at the shareholder meeting and whether it holds more votes than other investors (including potential voting rights and rights resulting from other contractual arrangements);
- how many entities would have to act together in order to outvote the PZU Group;
- distribution of votes at previous shareholder meetings;
- if the key personnel of the entity or members of the investee's governing body are related parties of the PZU Group;
- capacity to appoint members of management and supervisory bodies of the entity;

- commitments, if any, to ensure that an investee continues to operate as designed;
- capacity to obligate the entity to perform or prevent it from performing significant transactions;
- other prerequisites.

The analysis of prerequisites for exercising control over Pekao and Alior Bank as at 31 December 2022 is presented in the table below.

Criterion	Pekao	Alior Bank
Share in votes at the shareholder meeting	20.02%	31.93%
Other shareholders	Only three shareholders hold a stake of more than 5%, accounting in total for 17% shares. The remaining shareholders are dispersed and a significant number of entities would have to take concerted action to outvote PZU at the shareholder meeting.	Only two shareholders hold a stake of more than 5%, accounting in total for 18% shares. The remaining shareholders are dispersed and a significant number of entities would have to take concerted action to outvote PZU at the shareholder meeting.
Shareholder agreements	On 23 January 2017, PZU and PFR (holding 12.8% of Pekao's share capital) signed a Shareholder Agreement to build Pekao's long-term value, implement a policy aimed at ensuring Pekao's development, financial stability and effective and prudent management. It defines the rules of cooperation between PZU and PFR, in particular pertaining to joint exercise of voting rights from the shares held and the implementation of a common long-term policy for Pekao's business. The Shareholder Agreement provides for the possibility of having real influence on Pekao's operating policies. On 1 June 2022, an annex was signed extending the Shareholder Agreement until 7 June 2025, with the possibility of further extensions. The Management Board of PZU does not have any information about any agreements that may have been concluded between Pekao's other shareholders.	The Management Board of PZU does not have any information about any agreements that may have been concluded between Alior Bank's other shareholders.
Potential voting rights	No potential voting rights have been identified.	No potential voting rights have been identified.
Capacity to adopt resolutions in line with PZU's intentions	The analysis of attendance at past shareholder meetings does not provide clear grounds for denying control.	The analysis of attendance at past shareholder meetings does not provide clear grounds for denying control.
PZU representatives in governing bodies	Supervisory Board members include persons fulfilling key management functions at PZU.	Supervisory Board members include persons fulfilling key management functions at PZU.
Investor commitments and exposure to variability of returns	In connection with bancassurance, assurbanking activities, joint initiatives in the cost areas, including IT and real property, between PZU and Pekao, PZU has access to financial results, activities and operations that are not available to other shareholders of Pekao.	The PZU Group has undertaken investor commitments towards Alior Bank and conducts operations together with Alior Bank. This which means that it has greater exposure to the variability of Alior Bank's financial results than it is implied by the stake it holds in Alior Bank's equity.

In the light of the above prerequisites, it has been determined that the PZU Group exercises control both over Pekao (since 7 June 2017) and over Alior Bank (since 18 December 2015) and over their subsidiaries and therefore they were consolidated.

6.4.2. Rules of consolidation of mutual funds

The PZU Group has assumed that it exercises control over a mutual fund if the following conditions are jointly met:

- PZU Group companies jointly have the capacity to exercise their authority over the fund to influence the value of the return on investment, with the prerequisites for this capacity being, among others, control exercised over the mutual fund company and a significant share in the total number of votes at the meeting of investors or board of investors;
- the total exposure of PZU Group companies to variable returns from their involvement in a mutual fund is significant, which means that the total share of PZU Group companies in the fund's net assets equals or exceeds 20% (whereas the fund's assets that are net assets of unit-linked contracts are not used to determine this total share). If the involvement is less than 20% of

the fund's net assets then the exposure to fluctuations in the fund's financial results, considered together with decision-making powers, imply that such a fund is not controlled by the Group.

PZU Group accepts that a fund will remain consolidated (or unconsolidated, as the case may be) for a period of two quarters following a quarter that closed for the first time with a decline (or increase, as the case may be) of the share in the fund's net assets below 20% (or above 20%, as the case may be) if this decline (or increase, as the case may be) resulted from deposits (or withdrawals, as the case may be) made by participants from outside the PZU Group.

In the course of its analysis, the PZU Group also takes into account the rights held by other entities, e.g., the rights and possibilities to convene a meeting of the fund's participants.

The mutual funds controlled by the PZU Group are consolidated. Their assets are presented in their full amount in the statement of financial position as financial assets by type and classified to the relevant portfolios, while the liability related to the fund's net assets owned by third-party investors is recognized in "Other liabilities". If control over a mutual fund is lost then its consolidation ceases and the fund's assets and liabilities, as well as liabilities to its participants, if any, are excluded from the consolidated statement of financial position. Instead, the participation units or the investment certificates corresponding to the fair value of shares held by PZU Group companies in the fund's net assets are presented.

6.5 Acquisition method

Acquisitions of subsidiaries by the PZU Group are recognized by the purchase method of accounting.

For each acquisition transaction, the acquirer is identified and the acquisition date is determined, which is the date on which the acquirer obtains control over the acquiree. As of the acquisition date, the acquirer recognizes, separately from goodwill, the identifiable assets acquired, the liabilities assumed and any non-controlling interest in the acquiree.

As at the date of acquisition, the identifiable assets acquired and the liabilities assumed are measured at fair value.

For each acquisition, any non-controlling interest in the acquiree are measured at the non-controlling interest's proportionate share in the fair value of the acquiree's identifiable net assets.

The fair value measurement of assets and liabilities is associated with significant uncertainty regarding estimates, as it requires the Management Board of PZU to develop professional judgments and make use of complex and subjective assumptions. Relatively small changes in material assumptions may have a significant impact on the results of the measurement. Material assumptions include, among others: discount rates, credit risk costs, prepayment rates for performing portfolios and the timing and amount of expected cash flows for non-performing portfolios.

Determination of goodwill or a gain from a bargain purchase

Goodwill is measured and recognized as at the date of obtaining control as the surplus of:

- the consideration transferred measured at fair value as at the date of obtaining control;
- the amount of any non-controlling interest in the acquiree measured as described above;
- the acquisition-date fair value of the PZU Group's previously held equity interest in the acquiree;

over the obtaining control date net amount of the fair value of the identifiable assets acquired and the liabilities assumed.

If the net fair values of identifiable assets acquired and the liabilities assumed exceeds the fair value of payment received, increased by the value of all non-controlling interests in the acquiree and the fair value of the interest in the acquiree's equity and held before obtaining control, the gain from a bargain purchase is recognized in the consolidated profit and loss account. Before a gain from a bargain purchase is recognized, a reassessment is made whether all of the assets acquired and all of the liabilities assumed have been correctly identified and all additional assets or liabilities have been are recognized.

In the period of maximum 1 year from taking the control, PZU Group may retrospectively adjust the provisional fair values of assets and liabilities recognized as at the date of obtaining control to reflect new information obtained about facts and circumstances that existed as of the date of obtaining control and, if known, would have affected the measurement of these assets and liabilities. Such adjustments are charged directly to the recognized goodwill or gain from a bargain purchase.

Intangible assets

Intangible assets acquired in business combination transactions are recognized at fair value as at the date of obtaining control. The fair value of an intangible asset reflects expectations as to the probability that the entity achieves economic benefits from the asset in the future. The fair value of intangible assets is determined as follows:

- trademark – using the relief-from-royalty method, based on potential savings on the license fees that the company is not required to pay as the owner of the trademark (i.e. present value of future potential license fees). The market level of license fees is determined by analyzing license fee rates for using trademarks applied between unrelated parties in a comparable market segment. Then, hypothetical license payments are determined as the product of the assumed license fee rate and the amount of the estimated sales revenues. In order to calculate the net income from license, license payments should be reduced by the hypothetical amount of income tax. Then the calculated net cash flows are increased by the potential tax relief arising from the tax amortization benefit (TAB) of the trademark. Finally, the calculated cash flows are discounted using the discount rate reflecting, among others, risk typical for a given trademark;
- relations with brokers and relations with clients – using the multiperiod excess earnings method (MEEM), based on the present value of future profits generated by each relation. Fair value is then determined based on discounted future cash flows resulting from the excess income generated by a company in possession of the relevant intangible asset over revenues generated by a company without such an asset. The relations are identified and subsequently their life expectancy is determined (by applying the applicable attrition ratio using the Weibull curve) and revenues and costs associated with each relation are projected. Identified and calculated level of contributory asset charges (CAC), including maintenance of capital ratios at levels required by supervisory authorities, fixed assets, organized workforce, trademark and other intangible assets, is applied to cash flows after tax. If there are any tax structures in place that allow an average market participant to amortize a relation then its measurement should include TAB;
- IT systems – the gross value of purchased systems was assumed to be equal to the financial expenditure made to purchase them. For systems developed internally, their gross value is established at the amount of capitalized expenditures made to develop them. The amounts calculated using this method are then adjusted by the remaining operational life of the system, which is calculated as a percentage of the period of the system's useful life. The fair value of systems under development is adjusted to the amount of expenditures made on the functionalities for which the development work has not been completed or which have not been tested and thus are not ready for production acceptance;
- relations with customers holding savings and checking accounts (CDI, core deposit intangible) – as the present value of the difference between the cost of the CDI and the alternative borrowing costs (including interest and administrative expenses) that the bank would have to incur if it had no core deposit. The value of CDI is measured using the favorable source of funds method derived from the expense and income methods. In this method, the account retention ratio is projected (using the Weibull curve), the average initial balance and the number of accounts to be included in the measurement are estimated and the net balance of deposits is calculated (adjusted by the retention ratio and the unstable part of the deposit base). Then the cost of acquired deposits is calculated as reserve requirements, interest and administration expenses less net commission income from the accounts. Next, interest rate benchmarks are used to estimate the alternative borrowing cost. In the next step, the difference between the alternative borrowing costs and the cost of acquired deposits is calculated, which is discounted using the required rate of return. The measurement of CDI does not include any tax amortization benefit (TAB).

The discount rate used for the measurement of intangible assets reflects the time value of money and risks related to expected future cash flows. It is calculated on the basis of the expected return from the best investment alternative to the investment being measured. This rate sets the lowest return from the measured asset that is required by an investor in such a manner that the rate of return achieved by the investor is at least equal to the best available investment alternative. The return on the alternative investment must be comparable in terms of value, time and certainty.

The cost of equity (CE) is estimated as at the date of obtaining control in accordance with the Capital Asset Pricing Model (CAPM): $CE = RF + ERP \times \beta + SP + SR$, where RF stands for risk-free rate, ERP – market risk premium, β – measure of systematic risk borne by the equity holders, including the operational and financial risks associated with the business, SP – small cap premium, SR – specific risk premiums.

Loans and advances to customers

The measurement of the loan portfolio to fair value was performed using the income method involving the discounting of future cash flows arising from the loan portfolio component being measured. For performing loans, fair value was estimated as the present value of cash flows defined as the sum of the contractual installments of principal and interest (in accordance with the contractual margin rates and outstanding principal), adjusted by prepayments where relevant. The following is used to discount cash flows:

- interest rate determined based on money market instruments and derivative transactions (standard curve) taking into account the term structure and currency of the loan;
- credit spread (credit spread curve) taking into account the term structure, broken down into the credit risk level of the client or the transaction;
- liquidity margin (liquidity curve) taking into account the term structure and currency of the loan;
- market margin, taking into account the cost of capital and profit margin, broken down into client segment, type and currency of the product.

For measurement purposes, the loan portfolio has been divided by currencies, product groups, risk level and client segments.

The standard curve was calculated on the basis of quotations for deposits for nodes up to 1 year and IRS transactions for nodes above 1 year.

The credit spread curve was calculated on the basis of estimated cumulative probability of default curves and expected average recovery rates for a given product group and client segment.

The liquidity curve for PLN was determined as the higher of zero or the difference between the PLN:BOND curve (zero-coupon curve based on Treasury bond prices) and the PLN:Std curve. For other currencies, the liquidity curve was increased by the cost of a swap converting PLN into the currency in question (calculated from FX Swap and Cross Currency Basis Swap quotations). When the cost was negative, the value of zero was assumed.

Market margin was calibrated for loans granted in the period of 3 months preceding the date of obtaining control, so that the fair value is equal to the gross carrying amount. If the market margin became negative following the calibration, it was assumed to be zero. For foreign currency mortgage loans, the margin was determined as the margin for PLN mortgage loans plus the difference in the average margin between mortgage loans granted in foreign currencies and the average margin of PLN mortgage loans.

For short-term working capital loans, the net carrying amount was taken as fair value.

Analyses have shown that the fair value of impaired loans did not differ materially from their carrying amount.

Property, plant and equipment

Property is measured using the income method, while other tangible assets – using market or replacement method.

6.6 Measurement of transactions and balances denominated in foreign currencies and FX rates used

Transactions carried out in a currency other than Polish zloty are recognized at the exchange rate set by the National Bank of Poland (NBP) for the transaction date. At the end of the reporting period, cash items denominated in foreign currencies are translated using the average NBP exchange rate in effect on that date. Non-cash items measured at fair value and denominated in foreign currencies are measured using the average NBP exchange rate in effect on the date on which the fair value is determined. Gains and losses on currency translation are recognized directly in the profit and loss account.

Financial data of foreign subsidiaries are converted into Polish zloty as follows:

- assets and liabilities – at the average exchange rate set by the National Bank of Poland at the end of the reporting period;
- items of the profit and loss account, other comprehensive income and cash flows – at the arithmetic mean of average exchange rates set by the National Bank of Poland as at the dates ending each month of the reporting period.

Translation differences are recognized under “Foreign exchange translation differences” in equity.

Due to the currency exchange restrictions in force in Ukraine and irregular quotations of the Ukrainian hryvnia by the National Bank of Poland, the PZU Group determined the exchange rate for converting the data of Ukrainian companies using the NBU Decision (<https://zakon.rada.gov.ua/laws/show/v0018500-22#n67>), according to which authorized institutions (banks) carry out non-cash foreign currency purchase and sale operations on behalf of clients:

- in U.S. dollars - at an exchange rate that may deviate by no more than 1% from the official National Bank of Ukraine rate in effect on the day of the transaction;
- in other foreign currencies - at the rate that may deviate by no more than 1% from the rate determined on the basis of the official exchange rate of the hryvnia to the U.S. dollar, in effect on the date of the transaction, as well as information on current exchange rates of foreign currencies to the U.S. dollar (or the U.S. dollar to foreign currencies) on international foreign exchange markets, which are received through trade information systems at the time of the transaction.

The official Ukrainian hryvnia / U.S. dollar exchange rate adopted by the NBU (as of 21 July 2022, amounting to 36.5686 UAH/USD) was converted into Polish zloty using the USD/PLN exchange rate set by the National Bank of Poland. In accordance with this methodology, the Ukrainian hryvnia exchange rate set as of 31 December 2022 was 0.1204 PLN/UAH. The average exchange rate was obtained using the above methodology at the end of each month in the period April – December 2022 (until the end of March 2022, the PZU Group used the NBP exchange rate).

The following FX rates have been used for these consolidated financial statements:

FX rates used for translation of financial data of foreign related parties	1 January – 31 December 2022	1 January – 31 December 2021	31 December 2022	31 December 2021
Euro	4.6883	4.5775	4.6899	4.5994
British pound	5.4900	5.3308	5.2957	5.4846
Ukrainian hryvnia	0.1370	0.1422	0.1204	0.1487

6.7 Classification of insurance contracts in accordance with IFRS 4

The PZU Group Companies conducting insurance activity apply the guidelines set forth in IFRS 4 concerning the classification of their products as insurance contracts subject to IFRS 4 or as investment contracts. A contract meets the definition of an insurance contract only if an insured event could cause an insurer to pay significant additional benefits in any scenario, excluding scenarios that lack commercial substance (i.e. have no discernible effect on the economics of the transaction) and thus if a contract transfers considerable insurance risk.

The assessment whether a contract transfers considerable insurance risk requires analysis of the cash flows related to a product in various scenarios and estimating the probability of such scenarios. Such an assessment includes an element of subjective judgment, which has significant influence on the accounting principles applied. According to the assumptions made by the PZU Group, we are dealing with significant insurance risk when the occurrence of an insured event results in disbursement of a benefit that is at least 10% higher than the benefit that would be paid had the event not occurred. Based on this criterion, concluded contracts are recognized either according to IFRS 4 or according to IFRS 9.

6.7.1 Classification of non-life insurance contracts

Analysis has shown that all non-life insurance contracts transfer considerable insurance risk and accordingly they are governed by the requirements of IFRS 4.

Additionally, insurance contract accounting is still applied to financial guarantees that meet the definition of a financial instrument.

6.7.2 Classification of life insurance contracts

Analysis has shown that PZU Group's offer contains products that do not transfer significant insurance risk (including certain products with guaranteed rate of return and some unit-linked products) and thus do not meet the definition of an insurance

contract pursuant to IFRS 4. Therefore, these products have been classified in the consolidated financial statements as investment contracts measured in accordance with IFRS 9 at amortized cost or fair value (depending on the structure of each product).

Investment contracts include, among others: Pewny Zysk individual life and endowment insurance (recognized at amortized cost), unit-linked PZU IKZE insurance and Program Inwestycyjny Prestige [Prestige Investment Program] (recognized at fair value).

Both insurance contracts and investment contracts may include discretionary participation features (DPF). They entitle the insured to receive an additional benefit or a bonus in addition to the guaranteed claim. Such a benefit constitutes a significant portion of the total contractual claim; its amount or term are contractual and they depend on the insurer's discretion, whereas their occurrence depends on:

- history of the specified set or type of contracts;
- whether or not profit is realized on specified assets;
- whether the insurer, a fund or another entity related to the agreement makes profit or incurs loss.

All contracts with discretionary participation features, unilaterally specified by the insurance company, are measured in accordance with IFRS 4.

Additionally, no life insurance contracts have been identified which would provide for a simultaneous transfer of insurance risk and financial risk and require unbundling of insurance and investment components. In the case of contracts where unbundling of embedded options is permitted but not required under IFRS 4 (such as the right to surrender a contract, convert it into a funded contract, guaranteed annuity for a pre-defined premium, indexation of the sum insured and premiums), the investment component is not unbundled.

6.8 Reform of interest rate benchmarks

On 1 January 2018, a new standard took effect in the European Union for the development of benchmarks, based on the BMR, defining the principles of operation and duties of benchmark administrators and entities making use of these benchmarks. The purpose of the new rules is to increase the credibility, transparency and reliability of benchmarks. As a result of the reform, the benchmarks were adjusted to the new rules (including WIBOR and EURIBOR) or ceased to exist (such as LIBOR) having been replaced with alternative indicators. The largest impact of the reform on the PZU Group stems from loans and advances to customers.

As at 31 December 2022, the IBOR reform affecting the currencies covered by the PZU Group's exposure was largely completed. The table below presents the status of the transition to new benchmarks under the IBOR reform.

Currency	Benchmark before the reform	Benchmark status as at 1 January 2023	Benchmark after the reform	As at 31 December 2022
PLN	WIBOR (Warsaw Inter Bank Offered Rate)	consistent with the BMR	Reformed WIBOR / WIRON	in progress (in terms of fallback clauses)
EUR	EURIBOR	consistent with the BMR	EURIBOR	portfolio was not annexed
EUR	EUR LIBOR	phased out	EURIBOR	completed
CHF	CHF LIBOR	phased out	SARON, SARON Compound	completed
USD	USD LIBOR	during liquidation scheduled for the end of September 2024 from July 2023 it will be developed as a synthetic indicator	SOFR, Term SOFR	currently in effect
GBP	GBP LIBOR	during liquidation scheduled for the end of March 2024 developed as a synthetic indicator	SONIA, Term SONIA	currently in effect

The table below presents the PZU Group's exposure to individual unreformed IBOR benchmarks.

	WIBOR (Warsaw Inter Bank Offered Rate)	USD LIBOR	GBP LIBOR
Assets (gross carrying amount)	184,002	1,331	495
Liabilities (gross carrying amount)	35,653	68	-
Off-balance sheet liabilities – granted (nominal value)	8,197	327	1
Off-balance sheet liabilities - granted (nominal value)	297,682	5,621	-
Derivatives – concluded under hedge accounting (nominal value)	50,020	-	-

6.8.1. WIBOR (Warsaw Inter Bank Offered Rate)

The Crowdfunding Act provides for work on the process of determining a substitute for the WIBOR rate in the form of new risk-free rates based on O/N (overnight) transactions. A national working group has been established in July 2022 to prepare a roadmap for the smooth and safe implementation of the various elements of the process leading to the replacement of the WIBOR interest rate reference index with a new reference index.

The steering committee of the national working group, at its meetings on 25 August and 1 September 2022 held a discussion and decided on the WIRON index (Warsaw Interest Rate Overnight) as an alternative interest rate benchmark, whose inputs are information representing O/N (overnight) transactions with financial institutions and large companies.

WIRON has been published since the beginning of August 2022, and is expected to become a key interest rate benchmark under the BMR, which will be used in financial contracts (e.g. loan agreements), financial instruments (e.g. debt securities or derivatives) and by investment funds (e.g. in setting management fees). The administrator of WIRON within the meaning of the BMR is WSE Benchmark SA, listed in the register of the European Securities and Markets Authority (ESMA).

In the course of the work of the national working group, the identification, prioritization and estimation of the time-consuming tasks required to be carried out by market participants in order to correctly and safely replace the previously used WIBOR reference indexes with the new index was carried out.

In 2023, it is planned to review the prerequisites set forth in Article 23c(1) of the BMR, which are the basis for the Minister of Finance to designate by regulation a replacement for the key WIBOR reference index. Under the Finance Minister's Regulation, the replacement will apply to contracts and financial instruments that meet the prerequisites indicated in the BMR. The Finance Ministry's Regulation will also define the weighting coefficient (the so-called "spread") and the date from which the replacement will be applied.

6.8.2. CHF LIBOR

In accordance with Commission Implementing Regulation (EU) 2021/1847 of 14 October 2021 on the designation of a statutory replacement for certain settings of CHF LIBOR, since 1 January 2022, the benchmarks of the SARON Compound family, along with the pertinent adjustment, were used by operation of law in all contracts and financial instruments that, as at the date of entry into force of the Regulation, did not have appropriate fallback clauses and applied the CHF LIBOR benchmark previously. The introduction of substitute benchmarks by operation of law means in practice that it is unnecessary to modify the wording of the financial contracts affected by the change.

As of 1 January 2022, the publication of LIBOR CHF, LIBOR GBP, LIBOR EUR indices (for most tenors) has been suspended.

6.8.3. GBP LIBOR

Under UK law, the Financial Conduct Authority (the FCA) has been granted the right to amend the LIBOR GBP determination methodology and extend its development for a limited period in order to continue the existing contracts that apply these benchmarks, which, for various reasons, the PZU Group is unable to reform either by directly changing the benchmark or by introducing and applying tough legacy contracts (hereinafter: "TLCs"). The LIBOR benchmark modified in this manner will be applied by the PZU Group for the existing contracts (TLCs) based on the GBP LIBOR.

The European Commission has published an initiative that will define statutory substitutes for certain LIBOR benchmarks for the British pound. The PZU Group will monitor the progress of work under this initiative and at the same time considers proposing to its customers the signing of an annex removing any reference to the GBP LIBOR.

6.8.4. USD LIBOR

The PZU Group has a portfolio of loan agreements and derivative transactions based on the USD LIBOR benchmark with maturities extending beyond September 2024. In respect of these loan agreements, the PZU Group is considering reaching out to the borrowers with a proposed annex in which any reference to the USD LIBOR benchmark will be removed. Some derivatives are registered with the Central Counterparty Clearing House, while the rest contain effective fallback clauses.

6.8.5. Impact of the IBOR reform on hedge accounting

Despite the uncertainty, the PZU Group intends to continue its current hedge accounting policy in terms of the amount and timing of the cash flows as a result of the IBOR reform in cash flow hedge accounting, which also applies to the reformed benchmarks.

As part of the established hedging relationships, the PZU Group identifies the following interest rate reference rates: WIBOR, EURIBOR. As of the date on which the consolidated financial statements were prepared, these benchmarks were quoted and the resulting flows were exchanged with business partners.

The PZU Group assessed that in the case of EURIBOR there is currently no uncertainty regarding the dates or amounts of cash flows resulting from the IBOR reform. The benchmark has been adjusted to the requirements of the BMR and is calculated by an administrator authorized by regulatory authority. The PZU Group does not expect it will be necessary to change the hedged risk for other benchmarks.

In the case of WIBOR, the PZU Group believes there is uncertainty about the timing and amount of cash flows for the new benchmark. Such uncertainty may influence the assessments of the effectiveness of the relationship and high probability of the hedged position. For the needs of these assessments the PZU Group assumes that the interest rate benchmark on which cash flows from the hedged position or hedging instrument will not change as a result of the WIBOR reform.

As regards hedging instruments, the PZU Group companies joined the ISDA Fallbacks Protocol and actively cooperate with their counterparties to implement the rules of conduct consistent with the ISDA methodology.

7. Segment reporting

7.1 Reportable segments

7.1.1. Key classification criterion

Operating segments are components of an entity for which separate financial information is available and is subject to regular assessment by CODM (in practice this is the PZU Management Board), related to allocating resources and assessing operating results.

The main dividing line between segments in the PZU Group is based on the criteria of the nature of business, product groups, client groups and the regulatory environment. The characteristics of individual segments is provided in the table below.

Segment	Accounting standards	Segment description	Aggregation criteria
Corporate insurance (non-life insurance)	PAS	Broad scope of property insurance products, TPL and motor insurance customized to a customer's needs entailing individual underwriting offered to large economic entities by PZU, Link4, TUW PZUW.	Aggregation by similarity of products offered, similar client groups to which they are offered, distribution channels and operation in the same regulatory environment.

Segment	Accounting standards	Segment description	Aggregation criteria
Mass insurance (non-life insurance)	PAS	Broad scope of property, accident, TPL and motor insurance products offered to individual clients and entities in the small and medium enterprise sector by PZU and Link4.	As above.
Group and individually continued insurance (life insurance)	PAS	Group insurance addressed by PZU Życie to groups of employees and other formal groups (e.g. trade unions), under which persons under a legal relationship with the policyholder (e.g. employer, trade union) enroll in the insurance and individually continued insurance in which the policyholder acquired the right to individual continuation during the group phase. PZU Życie's offer covers a wide range of protection, investment (not investment contracts) and health insurance.	No aggregation.
Individual insurance (life insurance)	PAS	Insurance offered by PZU Życie to individual clients under which the insurance contract applies to a specific insured and this insured is subject to individual underwriting. PZU Życie's offer covers a wide range of protection, investment (not investment contracts) and health insurance.	No aggregation.
Investments	PAS	The segment includes: 1. investments of the PZU Group's own funds, understood as the surplus of investments over technical provisions in PZU, Link4 and PZU Życie plus the surplus of income earned over the risk-free rate on investments reflecting the value of technical provisions in insurance products, i.e. surplus of investment income allocated at transfer prices to insurance segments; 2. income from other free funds in the PZU Group (in particular consolidated mutual funds).	The aggregation was effected because of the similar surplus-based nature of the revenues.
Banking activity	IFRS	Broad range of banking products offered both to corporate and retail clients by the Pekao Group and the Alior Bank Group.	The aggregation was carried out due to similarity of products and services offered by the companies and the identical regulatory environment of their operations.
Pension insurance	PAS	2nd pillar pension insurance	No aggregation.
Baltic States	IFRS	Non-life and life insurance products offered by LD and its branch in Estonia, Balta and PZU LT GD.	The aggregation was carried out due to similarity of products and services offered by the companies and similarity of the regulatory environment of their operations.
Ukraine	IFRS	Non-life and life insurance products offered by PZU Ukraine and PZU Ukraine Life Insurance.	The aggregation was carried out due to similarity of the regulatory environment of their operations.
Investment contracts	PAS	PZU Życie products that do not transfer significant insurance risk within the meaning of IFRS 4 and that do not meet the definition of an insurance contract (i.e. some products with a guaranteed rate of return and some unit-linked products).	No aggregation.
Other	PAS / IFRS	Other products and services not classified into any of the above segments.	

7.1.2. Information relating to geographical areas

The PZU Group applies additional segmentation by geographic location, according to which the following geographic areas were identified:

- Poland;
- Baltic states;
- Ukraine.

7.2 Inter-segment settlements

The net result of investments (the difference between realized and unrealized revenues and costs) carried in corporate insurance (non-life), mass insurance (non-life), group and individually continued insurance (life), individual insurance (life) is determined on the basis of transfer prices using interest rates from the yield curves for treasuries. For unit-linked insurance products, guaranteed rate products and structured products the net result of investments covering the technical provisions corresponding to them is carried directly.

7.3 Segment's measure of profit

The PZU Group's fundamental measure of a segment's profit is as follows:

- in the case of corporate, mass, group, individually continued and individual insurance segments – insurance result, which is the financial result before tax and other operating income and expenses (including financial costs), however including investment income (corresponding to the value of technical provisions) determined using the risk-free rate. The insurance result is a measure approximately equivalent to the technical result defined in PAS, taking into account the difference in the recognition of the net result on investments as described in the previous sentence;
- in the case of the investment segment – the investment result of PZU Group companies minus the result allocated to insurance segments and adjusted for dividends received from subsidiaries and valuation of these entities using the equity method (carried out in accordance with PAS);
- in the case of investment contracts – the operating result, calculated in the manner approximately equivalent to the technical result in accordance with PAS;
- in the case of banking activity and foreign insurance activity – the operating result according to local accounting standards in the country of the company's registered offices or according to IFRS, which is the financial result before tax.

7.4 Accounting policies applied according to PAS

7.4.1. PZU

PAS and the differences between PAS and IFRS in respect of PZU's standalone financial reporting are presented in detail in the PZU's standalone financial statements for 2022.

PZU's 2022 standalone financial statements are available on the PZU website at www.pzu.pl in the "Investor Relations" tab.

7.4.2. PZU Życie

The accounting standards according to PAS applicable to PZU Życie are convergent with the PAS applicable to PZU.

What is unique to PZU Życie is the rules of accounting for insurance contracts and investment contracts according to IFRS.

The fundamental difference between PAS and IFRS in respect of accounting for insurance contracts and investment contracts at PZU Życie is the classification of contracts. There is no term "investment contract" in PAS, as a consequence of which all agreements are classified as insurance contracts. According to IFRS agreements are classified according to the guidelines set forth under IFRS 4 "Insurance contracts" on the classification of products as insurance contracts (subject to IFRS 4) or investment contracts (measured according to IFRS 9 "Financial instruments"). In the case of the latter the written premium is not recognized. The classification of those contracts is described in Section 6.7.

7.5 Simplifications in the segmental note

The segmental note has applied certain simplifications permitted by IFRS 8 "Operating segments":

- withdrawing from presenting data related to the allocation of all assets and liabilities to various segments – resulting from not preparing and not presenting such tables to the PZU Management Board. The main information delivered to the PZU Management Board consists of data regarding the results of given segments and managerial decisions are made on this basis, including decisions on resource allocation. The analysis of the segmental allocation of assets and liabilities is limited to a large extent to monitoring the fulfillment of the regulatory requirements;
- presenting the net result on investments as a single amount as the difference between the realized and unrealized revenues and the costs of investments – stemming from the internal assessment of the segmental results based on such a combined measure of investment results;
- not allocating other revenues and costs to the segment called „investments” besides realized and unrealized revenues and costs of investments – stemming from the method of analyzing this segment’s data and the impracticality of such an allocation.

7.6 Quantitative data

Corporate insurance (non-life insurance)	1 January – 31 December 2022	1 January – 31 December 2021
Gross written premium – external	3,954	3,199
Gross written premium – cross-segment	77	84
Gross written premiums	4,031	3,283
Movement in provision for unearned premiums and gross provision for unexpired risks	(521)	(41)
Gross earned premium	3,510	3,242
Reinsurers’ share in gross written premium	(1,415)	(904)
Reinsurer’s share in the movement in provision for unearned premiums and the gross provision for unexpired risk	408	27
Net earned premiums	2,503	2,365
Investment income, including:	124	73
external operations	124	73
intersegment operations	-	-
Other net technical income	53	51
Income	2,680	2,489
Net insurance claims and benefits	(1,684)	(1,510)
Movement in other net technical provisions	(5)	(16)
Acquisition expenses	(545)	(522)
Administrative expenses	(161)	(142)
Reinsurance commissions and profit participation	68	56
Other	(71)	(61)
Insurance result	282	294

Mass insurance (non-life insurance)	1 January – 31 December 2022	1 January – 31 December 2021
Gross written premium – external	11,549	10,895
Gross written premium – cross-segment	34	15
Gross written premiums	11,583	10,910
Movement in provision for unearned premiums and gross provision for unexpired risks	(470)	(663)
Gross earned premium	11,113	10,247
Reinsurers' share in gross written premium	(245)	(307)
Reinsurer's share in the movement in provision for unearned premiums and the gross provision for unexpired risk	55	181
Net earned premiums	10,923	10,121
Investment income, including:	593	385
external operations	593	385
intersegment operations	-	-
Other net technical income	84	112
Income	11,600	10,618
Net insurance claims and benefits	(6,596)	(6,198)
Movement in other net technical provisions	(39)	(29)
Acquisition expenses	(2,470)	(2,166)
Administrative expenses	(706)	(678)
Reinsurance commissions and profit participation	41	33
Other	(333)	(329)
Insurance result	1,497	1,251

Group and individually continued insurance (life insurance)	1 January – 31 December 2022	1 January – 31 December 2021
Gross written premium – external	7,166	7,030
Gross written premium – cross-segment	-	-
Gross written premiums	7,166	7,030
Movement in the provision for unearned premiums	26	26
Gross earned premium	7,192	7,056
Reinsurers' share in gross written premium	(2)	(1)
Reinsurer's share in the movement in provision for unearned premiums and the gross provision for unexpired risk	-	-
Net earned premiums	7,190	7,055
Investment income, including:	617	520
external operations	617	520
intersegment operations	-	-
Other net technical income	2	2
Income	7,809	7,577
Net insurance claims and benefits and movement in other net technical provisions	(5,333)	(5,597)
Acquisition expenses	(429)	(394)
Administrative expenses	(752)	(669)
Other	(46)	(47)
Insurance result	1,249	870

Individual insurance (life insurance)	1 January – 31 December 2022	1 January – 31 December 2021
Gross written premium – external	1,451	1,750
Gross written premium – cross-segment	-	-
Gross written premiums	1,451	1,750
Movement in the provision for unearned premiums	(3)	(2)
Gross earned premium	1,448	1,748
Reinsurers' share in gross written premium	(1)	(1)
Reinsurer's share in the movement in provision for unearned premiums and the gross provision for unexpired risk	-	-
Net earned premiums	1,447	1,747
Investment income, including:	(181)	153
external operations	(181)	153
intersegment operations	-	-
Other net technical income	-	1
Income	1,266	1,901
Net insurance claims and benefits and movement in other net technical provisions	(695)	(1,329)
Acquisition expenses	(216)	(224)
Administrative expenses	(109)	(86)
Other	(8)	(7)
Insurance result	238	255
Investments	1 January – 31 December 2022	1 January – 31 December 2021
Investment income, including:	493	715
external operations	420	662
intersegment operations	73	53
Operating result	493	715
Banking activity	1 January – 31 December 2022	1 January – 31 December 2021
Revenue from commissions and fees	5,027	4,627
external operations	4,884	4,472
intersegment operations	143	155
Investment income	13,636	7,319
external operations	13,636	7,319
intersegment operations	-	-
Income	18,663	11,946
Fee and commission expenses	(1,458)	(1,201)
Interest expenses	(4,617)	(376)
Administrative expenses	(5,639)	(5,077)
Other	(3,035)	(1,513)
Operating result	3,914	3,779

Pension insurance	1 January – 31 December 2022	1 January – 31 December 2021
Investment income, including:	12	4
external operations	12	4
intersegment operations	-	-
Other income	161	154
Income	173	158
Administrative expenses	(49)	(57)
Other	(5)	(5)
Operating result	119	96
Insurance – Baltic States	1 January – 31 December 2022	1 January – 31 December 2021
Gross written premium – external	2,359	1,867
Gross written premium – cross-segment	-	-
Gross written premiums	2,359	1,867
Movement in provision for unearned premiums and gross provision for unexpired risks	(212)	(59)
Gross earned premium	2,147	1,808
Reinsurers' share in gross written premium	(87)	(67)
Reinsurer's share in the movement in provision for unearned premiums and the gross provision for unexpired risk	4	1
Net earned premiums	2,064	1,742
Investment income, including:	(13)	42
external operations	(13)	42
intersegment operations	-	-
Income	2,051	1,784
Net insurance claims and benefits	(1,238)	(1,082)
Acquisition expenses	(454)	(366)
Administrative expenses	(163)	(142)
Other	7	6
Insurance result	203	200

Insurance – Ukraine	1 January – 31 December 2022	1 January – 31 December 2021
Gross written premium – external	231	339
Gross written premium – cross-segment	-	-
Gross written premiums	231	339
Movement in provision for unearned premiums and gross provision for unexpired risks	24	(17)
Gross earned premium	255	322
Reinsurers' share in gross written premium	(16)	(94)
Reinsurer's share in the movement in provision for unearned premiums and the gross provision for unexpired risk	(32)	(1)
Net earned premiums	207	227
Investment income, including:	(42)	16
external operations	(42)	16
intersegment operations	-	-
Income	165	243
Net insurance claims and benefits	(106)	(102)
Acquisition expenses	(48)	(112)
Administrative expenses	(33)	(39)
Other	17	24
Insurance result	(5)	14

Investment contracts	1 January – 31 December 2022	1 January – 31 December 2021
Gross written premium	30	33
Movement in the provision for unearned premiums	-	-
Gross earned premium	30	33
Reinsurers' share in gross written premium	-	-
Reinsurer's share in the movement in the provision for unearned premiums	-	-
Net earned premiums	30	33
Investment income, including:	(29)	(3)
external operations	(29)	(3)
intersegment operations	-	-
Other income	-	-
Income	1	30
Net insurance claims and benefits and movement in other net technical provisions	6	(22)
Acquisition expenses	-	-
Administrative expenses	(2)	(2)
Other	-	-
Operating result	5	6

Other segments	1 January – 31 December 2022	1 January – 31 December 2021
Investment income, including:	32	5
external operations	32	5
intersegment operations	-	-
Other income	1,781	1,553
Income	1,813	1,558
Costs	(1,907)	(1,588)
Other	58	37
Operating result	(36)	7

Reconciliations 1 January – 31 December 2022	Net earned premiums	Investment income	Net insurance claims and benefits	Acquisition expenses	Administrative expenses	Operating result
Corporate insurance	2,503	124	(1,684)	(545)	(161)	282
Mass insurance	10,923	593	(6,596)	(2,470)	(706)	1,497
Group and individually continued insurance	7,190	617	(5,333)	(429)	(752)	1,249
Individual insurance	1,447	(181)	(695)	(216)	(109)	238
Investments	-	493	-	-	-	493
Banking activity	-	13,636	-	-	(5,639)	3,914
Pension insurance	-	12	-	(6)	(49)	119
Insurance – Baltic States	2,064	(13)	(1,238)	(454)	(163)	203
Insurance – Ukraine	207	(42)	(106)	(48)	(33)	(5)
Investment contracts	30	(29)	6	-	(2)	5
Other segments	-	32	-	-	-	(36)
Total segments	24,364	15,242	(15,646)	(4,168)	(7,614)	7,959
Presentation of investment contracts	(30)	33	(6)	-	-	-
Presentation of the movement in other net technical provisions	-	-	2	-	-	-
Estimated salvage and subrogation	-	-	(11)	-	-	(11)
Valuation of properties	-	(5)	-	-	(2)	(5)
Elimination of the equalization provision and prevention fund	-	-	-	-	-	58
Allowances to the Company Social Benefit Fund and actuarial costs	-	-	-	-	(17)	(36)
Consolidation adjustments	(37)	(87)	119	265	58	(335) ¹⁾
Consolidated data	24,297	15,183²⁾	(15,542)	(3,903)	(7,575)	7,630

¹⁾ Consolidation adjustments ensue chiefly from the dividends paid between the various segments and the various accounting standards in which the specific reporting segments are reported (PAS and IFRS) and consolidated data (IFRS).

²⁾ The sum of the following line items in the consolidated profit and loss account: “Interest income calculated using the effective interest rate”, “Other net investment income”, “Result on derecognition of financial instruments and investments”, “Movement in allowances for expected credit losses and impairment losses on financial instruments” and “Net movement in fair value of assets and liabilities measured at fair value”.

Reconciliations 1 January – 31 December 2021	Net earned premiums	Investment income	Net insurance claims and benefits	Acquisition expenses	Administrative expenses	Operating result
Corporate insurance	2,365	73	(1,510)	(522)	(142)	294
Mass insurance	10,121	385	(6,198)	(2,166)	(678)	1,251
Group and individually continued insurance	7,055	520	(5,597)	(394)	(669)	870
Individual insurance	1,747	153	(1,329)	(224)	(86)	255
Investments	-	715	-	-	-	715
Banking activity	-	7,319	-	-	(5,077)	3,779
Pension insurance	-	4	-	(7)	(57)	96
Insurance – Baltic States	1,742	42	(1,082)	(366)	(142)	200
Insurance – Ukraine	227	16	(102)	(112)	(39)	14
Investment contracts	33	(3)	(22)	-	(2)	6
Other segments	-	5	-	-	-	7
Total segments	23,290	9,229	(15,840)	(3,791)	(6,892)	7,487
Presentation of investment contracts	(33)	9	22	-	-	-
Presentation of the movement in other net technical provisions	-	-	(4)	-	-	-
Estimated salvage and subrogation	-	-	6	-	-	6
Valuation of properties	-	(6)	-	-	(2)	(8)
Elimination of the equalization provision and prevention fund	-	-	-	-	-	50
Allowances to the Company Social Benefit Fund and actuarial costs	-	-	-	-	-	-
Consolidation adjustments	(25)	323	85	219	68	(66) ¹⁾
Consolidated data	23,232	9,555²⁾	(15,731)	(3,572)	(6,826)	7,469

¹⁾ Consolidation adjustments ensue chiefly from the dividends paid between the various segments and the various accounting standards in which the specific reporting segments are reported (PAS and IFRS) and consolidated data (IFRS).

²⁾ The sum of the following line items in the consolidated profit and loss account: “Interest income calculated using the effective interest rate”, “Other net investment income”, “Result on derecognition of financial instruments and investments”, “Movement in allowances for expected credit losses and impairment losses on financial instruments” and “Net movement in fair value of assets and liabilities measured at fair value”.

Geographic breakdown	1 January – 31 December 2022					1 January – 31 December 2021				
	Poland	Baltic States	Ukraine	Unallo- cated	Consolid- ated value	Poland	Baltic States	Ukraine	Unallo- cated	Consolid- ated value
Gross written premium – external	24,120	2,359	231	-	26,710	22,874	1,867	339	-	25,080
Gross written premium – cross-segment	73	-	-	(73)	-	54	-	-	(54)	-
Revenue from commissions and fees	5,134	2	-	-	5,136	4,737	1	-	-	4,738
Investment income ¹⁾	15,238	(13)	(42)	-	15,183	9,497	42	16	-	9,555

¹⁾ The sum of the following line items in the consolidated profit and loss account: “Interest income calculated using the effective interest rate”, “Other net investment income”, “Result on derecognition of financial instruments and investments”, “Movement in allowances for expected credit losses and impairment losses on financial instruments” and “Net movement in fair value of assets and liabilities measured at fair value”.

Geographic breakdown	31 December 2022					31 December 2021				
	Poland	Baltic States	Ukraine ¹⁾	Unallocated	Consolidated value	Poland	Baltic States	Ukraine ¹⁾	Unallocated	Consolidated value
Non-current assets, other than financial assets ²⁾	7,264	319	3	-	7,586	7,261	281	5	-	7,547
Deferred tax assets	3,085	-	-	-	3,085	3,055	-	3	-	3,058
Assets	433,204	3,906	391	(1,382)	436,119	399,262	3,611	554	(1,298)	402,129

¹⁾ Assets of companies based in Ukraine, adjusted for mutual interests between them.

²⁾ The sum of the following items of the consolidated statement of financial position: "Intangible assets" and "Property, plant and equipment".

7.7 Information on key customers

Due to the nature of operations undertaken by PZU Group companies, there are no customers that would provide 10% or more of total revenues of the PZU Group (defined as gross written premium).

8. Risk management

8.1 Introduction

Risk management aims to build value for all PZU Group stakeholders by actively and deliberately managing the quantum of risk accepted. The essence of the process also involves preventing the acceptance of risk at a level that could pose a threat to the financial stability of the PZU Group, which is also a financial conglomerate.

Risk management in the PZU Group is based on risk analysis in all processes and units. Risk management is an integral part of the management system.

To ensure sectoral consistency and the execution of the strategic plans of individual companies as well as the business objectives of the entire PZU Group, the main elements of PZU Group's risk management have been implemented. They include among others:

- systems of limits and limitations on the acceptable level of risk, including the level of risk appetite;
- processes involving identification, measurement and assessment, monitoring and control, reporting and management measures pertaining to individual risks and significant risk concentration;
- risk management organizational structure in which the management boards and supervisory boards of the entities and dedicated committees play a crucial role.

Entities from the financial sector are additionally obligated to apply the appropriate standards for a given sector. The adopted internal regulations specify among others:

- processes, methods and procedures facilitating risk measurement and management;
- split of duties in the risk management process;
- scope and conditions and the frequency of risk management reporting.

The risk management system in the PZU Group is based on the following:

- a split of duties and tasks performed in the risk management process by statutory bodies, committees and individual organizational units and cells;
- risk management process, including risk identification, measurement and assessment, monitoring and control methods, risk reporting and undertaking management actions.

PZU exercises supervision over the PZU Group's risk management system on the basis of mutual cooperation agreements entered into with Group entities. PZU manages the PZU Group risk from an aggregated perspective and on the basis of the information provided thereunder. The agreements entered into and the scope of information to be provided take into consideration the specific legal nature of each entity, including limitations arising from banking secrecy rules.

In addition, PZU as the leading entity in the financial conglomerate manages risk concentration at the level of the overall conglomerate. The leading entity has established the risk concentration management standards, in particular through

introduction of rules for identification, measurement and assessment, monitoring and reporting of significant risk concentration and making managerial decisions.

Additionally, the PZU Group has in place processes to ensure the effectiveness of risk management at the PZU Group level. The risk management rules applicable to the subsidiaries include a recommendation issued by PZU regarding the organization of the risk management system in those entities (both insurance and banking sector subsidiaries). Additionally, guidelines regulating the various risk management processes in the PZU Group entities are also issued from time to time.

The management boards of PZU Group entities are responsible for fulfilling their own duties in accordance with the generally applicable provisions of national and international law. In particular, they are responsible for implementation of an adequate and effective risk management system.

Supervision over the risk management systems in the various financial sector unites is exercised by the supervisory boards to which PZU appoints its representatives.

8.2 Split of duties and tasks

The consistent split of duties and tasks in the PZU Group and in individual subsidiaries of the PZU Group's financial sector is based on four decision-making levels.

The first three are:

- The Supervisory Board, which supervises the risk management process and assesses its adequacy and effectiveness as part of its decision-making powers defined in each company's Articles of Association and the Supervisory Board bylaws;
- the Management Board, which organizes the risk management system and ensures that it is operational, by adopting strategies and policies and setting the risk appetite, defining the risk profile and tolerance for individual categories of risk;
- committees, which make decisions to mitigate individual risks to a level determined by the risk appetite. The committees adopt the procedures and methodologies for mitigating the individual risks and accept individual risk limits.

The fourth decision-making level pertains to operational measures and is divided into three lines of defense:

- the first line of defense – entails ongoing risk management at the entities' business unit and organizational unit level and decision-making as part of the risk management process, also within the framework of the prevailing limits;
- the second line of defense includes risk management by specialized cells responsible for risk identification, measurement, monitoring and reporting and controlling the limits;
- the third line of defense – entails internal audit that conducts independent audits of the elements of the risk management system as well as control activities embedded in the Group's operations.

The Actuarial, Operational and Model Committee was established at the level of the PZU Group in 2022. A committee focused on such risks will facilitate developing the PZU Group's risk management system and ensure accurate and timely flow of information on operational, actuarial and model risks, which beforehand were addressed at meetings of the PZU Group's Risk Committee.

In the risk management process in banks (Pekao and Alior Bank), an active role is played by Management Board, Supervisory Boards and special committees dealing with credit, financial and operating risk as well as asset and liability management.

The Supervisory Boards oversee the risk management process and set out a relevant strategy each year. The Management Boards are responsible, among others, for accepting policies and guidelines related to risk management and setting detailed limits for mitigating the banks' risks, as well as providing a proper mechanism to control them.

Special committees exercise ongoing control over the bank's risk management, which includes decisions about the accepted level of credit risk for single transactions, recommendations of portfolio limits for credit risk to the Management Board, supervision of liquidity risk level, market risk limits and the allowed level of operational risk. In addition, they monitor the risk appetite and capital adequacy levels.

8.3 Risk appetite, risk profile and risk tolerance

A process of determining the risk appetite and risk limits for each risk category consistent with the Group's process has been implemented in the PZU Group insurance entities. The Management Board of each entity determines the risk appetite, risk profile and risk tolerance reflecting its financial plans, business strategy and the objectives of the entire PZU Group.

Risk appetite is defined as the level of risk that a company is prepared to accept in pursuit of its business objectives. The measure of risk appetite is the level of potential financial losses, the decline in asset value or the growth in the amount of liabilities within one year. The level of risk appetite is defined as the minimum capital requirement coverage ratio. Risk appetite defines the maximum level of permissible risk while setting limits and restrictions for the various partial risks and the level above which remedial actions are taken to curtail further risk expansion.

The risk profile involves quantitative limits, which offer a more precise definition of the risk appetite.

Tolerance limits are additional limits introduced for the individual risks types to mitigate potential risk.

This approach ensures the adequacy and effectiveness of the risk management system in the PZU Group and prevents acceptance of risk levels that could jeopardize the financial stability of individual companies and the entire PZU Group. The determination of the appropriate level of risk in each entity is the responsibility of its Management Board. The risk unit reviews the size of the risk appetite at least once a year. All actions are coordinated at the PZU Group level.

Risk appetite is determined at least once a year in the PZU Group's banking sector entities. This process is carried out based on the applicable regulatory requirements and best practices. This process is tailored to both banks to reflect their business strategy and capital structure. Risk appetite in banking sector entities is a topic for consultation with the PZU Group's parent company and the subject matter of opinions issued by the PZU Group Risk Committee with a view to ensuring consistency between the activities carried out by the banks and the strategic plans and business objectives of the entire PZU Group as a whole while maintaining an acceptable level of risk at the Group level. The agreed upon level of risk appetite is also approved by the Supervisory Boards of the banking entities.

8.4 Risk identification, measurement, assessment, monitoring and reporting methods

Identification, measurement and assessment, monitoring and control, and undertaken management activities ensure ongoing adequacy and effectiveness of the risk management system. The risk management process in PZU Group consists of:

- **risk identification** – commences with a proposal to start developing an insurance product, buying a financial instrument, modifying an operating process, and also whenever some other event occurs that may potentially lead to the emergence of risk. The identification process continues until the expiration of liabilities, receivables or activities associated with the risk. Risk identification involves identification of actual and potential sources of risk, which are later analyzed in terms of significance;
- **measurement and assessment of risk** – conducted depending on the nature of the risk type and its significance level. Risk measurement is carried out by specialized units. Risk units in each entity are responsible for the development of tools and the measurement of risk in terms of risk appetite, risk profile and risk tolerance;
- **risk monitoring and control** – consists in the ongoing analysis of deviations from benchmarks (limits, threshold values, plans, figures from prior periods, recommendations and guidelines);
- **reporting** – allows for effective communication on risk and supports risk management on various decision-making levels;
- **management actions** – including, among others, risk avoidance, risk transfer, risk mitigation, determination of risk appetite, acceptance of risk level, as well as the use of supporting tools, such as limits, reinsurance programs or regular review of internal regulations.

Two levels are distinguished in the risk management process:

- **the PZU Group level** – ensuring that the PZU Group attains its business objectives in a safe manner appropriate to fit the scale of the risk involved. The PZU Group provides support for the implementation of a risk management system, including the introduction of compatible mechanisms, standards and organization of an efficient operation of the internal control system (with particular emphasis on the compliance function), the risk management system (in particular in the reinsurance area) and the security management system in the PZU Group, and monitors their ongoing application. While carrying out their tasks

in the risk management system, authorized PZU Group personnel cooperates with the Management Boards of subsidiaries and the management of such areas as finance, risk, actuary, reinsurance, investments and compliance on the basis of appropriate cooperation agreements. A risk concentration management system was implemented to ensure that entities in the financial conglomerate attain their business objectives in a manner ensuring financial stability at the level of both the entire conglomerate and individual entities. The system monitors appropriate risk concentration measures and their limits and threshold values. Risk measurement permits identification of the sources of concentration in individual risks at the level of both the financial conglomerate and individual regulated entities and supports an assessment of the impact of these concentrations on financial stability;

- **the entity level** – ensuring that the PZU Group entity attains its business objectives in a safe manner appropriate to the scale of the risk involved. Monitored at this level are the limits and risk categories specific to the company and, as part of the risk management system, mechanisms, standards and organization are implemented for the efficient operation of the internal control system (with particular emphasis on the compliance function), the risk management system (in particular in reinsurance area) and the security management system.

8.5 Risk profile

The main types of risk to which the PZU Group is exposed includes credit risk (in particular risk related to bank credit portfolio), actuarial risk, market risk (in particular interest rate risk, foreign exchange risk, and risk related to financial instruments and commodities), liquidity risk, concentration risk, operational risk, compliance risk and models risk.

In 2022, moderate increase in risk was recorded in some areas, in particular capital adequacy and regulatory risk, credit risk and interest rate risk. The 2022 interest rate increase reflected negatively on the level of solvency ratios as valuations of debt securities owned by the PZU Group dropped; however, it is yet to translate into material deterioration of credit quality of PZU Group's bank portfolio. In 2022, there was a moderate increase in credits costs, which, stems from a significant rise of the NBP reference rate due to higher inflation and slower economic growth. Furthermore, the KNF (the Polish Financial Supervision Authority) issued its recommendations on higher requirements applied to examine the client's creditworthiness, consequently limiting sales. Also, banks were burdened with additional regulatory fees (introduction of credit holiday, additional premium for the Borrower Support Fund, premium for the Commercial Bank Protection System) and increased reserves on account of a growing number of lawsuits and settlements pertaining to Swiss franc loans. These factors have a negative impact on financial results of banks, and in the long term may limit the capital base and business development in the future.

When managing the various risk types, the PZU Group identifies, measures and monitors risk concentration. To meet the regulatory obligations imposed on groups identified as financial conglomerates, a model to manage significant risk concentration in the PZU Financial Conglomerate was implemented by the PZU Group in 2020 in keeping with the requirements of the Supplementary Oversight Act. Regulated subsidiaries monitor and submit regular reports to the leading entity in the financial conglomerate (PZU) on the measures and data supporting identification of risk concentrations. In the case of identification of an excessive risk concentration, appropriate management actions are implemented on the level of the given entity or the whole financial conglomerate.

In 2022, initiatives were continued to improve the identification, measurement, assessment and monitoring of the risks associated with sustainable development, in particular with climate changes. The main risks in this area are transition risks and physical risks¹, which are managed as part of individual risk categories specified below in this consolidated financial statements.

The management process for various risk categories comprises requirements of sustainable development, and the same applies at the level of each PZU Group subsidiary, in compliance with prevailing provisions of law and individually defined PZU Group internal policies, including the ESG Strategy which constitutes an integral part of the PZU Group Strategy.

¹ According to the European Commission guidance for non-financial reporting, transition risks refer to the transition of the economy to a low-carbon and climate-resilient future. Physical risk on the other hand entails financial losses stemming from the physical consequences of climate change and encompasses acute (e.g. storms, fires) and long-term risk (rising sea level).

8.5.1. Credit risk and concentration risk

Credit risk is the risk of a loss or adverse change in the financial situation resulting from fluctuations in the trustworthiness and creditworthiness of issuers of securities, counterparties and all debtors, materializing through a counterparty's default on a liability or an increase in credit spread. This definition also includes credit risk in financial insurance.

Credit risk types in the PZU Group include:

- **credit risk in banking activity** – is the credit risk arising from activity conducted in the banking sector, associated mainly with the possibility that a debtor or borrower defaults on its obligations;
- **credit risk in financial insurance** – credit risk resulting from activity in the financial insurance sector, related mainly to the possibility that a PZU Group customer defaults on its obligations to a third party, or a debtor/borrower defaults on its obligations to a PZU Group customer; this threat may result from failure to complete an undertaking or adverse influence of the business environment;
- **credit spread risk** – the possibility of incurring a loss due to a change in the value of assets, liabilities and financial instruments resulting from a change in the level of credit spreads as compared to the term structure of interest rates of debt securities issued by the State Treasury or fluctuations of their volatility;
- **counterparty default risk** – the possibility of incurring a loss as a result of unexpected default of counterparties and debtors or deterioration of their credit rating.

Concentration risk is the risk stemming either from lack of diversification in the asset portfolio or from large exposure to default risk by a single issuer of securities or a group of related issuers.

Exposure to credit risk in the PZU Group arises directly from banking, investment activities, activity in the financial insurance and guarantee segment and reinsurance and bancassurance operations. The PZU Group distinguishes the following kinds of credit risk exposure:

- risk of a customer's default against PZU Group under contracted loans (in banking activity);
- risk of bankruptcy of an issuer of financial instruments in which PZU Group invests or which it trades, e.g. corporate bonds;
- counterparty default risk, e.g. reinsurance or OTC derivatives and bancassurance activity;
- risk of default of a PZU Group's customer against a third party, e.g. insurance of cash receivables, insurance guarantees.

8.5.1.1. Concentration risk arising out of lending activity

This section presents information related to lending activity of PZU Group's banks.

To prevent adverse events that could result from excessive concentration, both Pekao and Alior Bank mitigate the concentration risk by setting limits and applying concentration standards arising from both external and internal regulations. They include the following:

- rules of identifying the areas where concentration risk arises in credit activity;
- taking concentration into account when estimating internal capital;
- process of setting and updating limit levels;
- process of managing the limits and adopting the rules of conduct if the permitted limit level is exceeded;
- concentration risk monitoring process, including reporting;
- oversight over the concentration risk management process.

The process of setting and updating concentration limits takes the following into account:

- information on the level of credit risk of limited portfolio segments and their impact on realization of assumptions related to risk appetite in terms of credit portfolio quality and capital position;
- sensitivity of limited portfolio segments to changes in the macroeconomic environment assessed in regular stress tests;
- reliable economic and market information concerning each exposure concentration area, especially macroeconomic and industry ratios, information about economic trends, including the projection of the levels of interest rates, exchange rates, political risk analysis, ratings of governments and financial institutions;

- reliable information about economic situation of companies, industries, branches, economic sectors, general economic information including news about economic and political situation of countries, as well as other information needed to evaluate concentration risk;
- interactions between different kinds of risk, i.e. credit, market, liquidity and operational risk.

Risk analysis is performed, in individual and portfolio approach. Measures are undertaken to:

- minimize credit risk for an individual loan with the assumed level of return;
- reduce overall credit risk arising from a specific credit portfolio.

In order to minimize the risk level of a single exposure, the following is assessed every time when a loan or other credit product is granted:

- reliability and creditworthiness, including detailed analysis of the source of repayment;
- collateral, which entails review of the formal, legal and economic status, including loan to value adequacy.

In order to enhance control over the risk of individual exposures, clients are monitored regularly and appropriate measures are taken if increased risk is identified.

In order to minimize credit risk arising from a particular portfolio:

- concentration limits are set and tracked;
- early warning signals are monitored;
- credit portfolio is monitored regularly, especially material credit risk parameters;
- regular stress tests are carried out.

8.5.1.2. Credit risk in banking activity

Risk assessment in credit process

The provision of credit products is accomplished in accordance with loan granting methodologies appropriate for a given client segment and type of product. The internal rating process in both banks constitutes a significant part of assessing credit risk of both the client and the transaction. It is an important step in the credit decision-making process for new loans and for changes of lending terms, and in monitoring loan portfolio quality. Each bank has developed its own models used in the client creditworthiness assessment process, which must be completed before a credit decision is made. The models are based on external information and on internal data. Credit products are granted in the banks in accordance with the operating procedures, whose purpose is to set out the proper steps that must be taken in the credit process, identify the units responsible for those activities and the tools to be applied.

Credit decisions are made in accordance with the existing credit decision system (with decision-making powers at specific levels matching the risk level of a particular client and transaction).

In order to conduct regular assessment of accepted credit risk and to mitigate potential losses on credit exposures, the client's standing is monitored during the lending period by identifying early warning signals and by conducting regular individual reviews of credit exposures.

To minimize credit risk, security interests are established in line with the level of exposure to credit risk, considering recovery rate from a specific type of collateral. The establishment of a security interest does not waive the requirement to examine the client's creditworthiness.

Collateral is taken to secure repayment of the loan amount with due interest and costs if the borrower fails to settle its due debt within the dates stipulated in a loan agreement and restructuring activities are not successful. Accepted forms of collateral include: guarantees, sureties, account freezes, registered pledges, transfers of title, assignments of receivables, assignment of credit insurance, promissory notes, mortgages, powers of attorney to bank accounts and security deposits (as special forms of collateral). The assets constituting collateral are reviewed in the credit process in terms of their legal capacity to establish effective security interest and also the recoverable amount in a possible enforcement procedure.

The financial effect of the established collateral for the portfolio of exposures measured individually with recognized impairment as at 31 December 2022 is PLN 2,035 million (as at 31 December 2021: PLN 2,291 million). This is an amount by which the level of the required impairment losses for this portfolio would be higher if no discounted cash flows obtained from collateral were taken into account in their estimation.

Scoring and credit rating

The rating scale differs by bank, customer segment and transaction type. The following tables present the quality of credit portfolios for exposures covered by internal rating models. Because of the different rating models employed by Pekao and Alior Bank, the data are presented for each of the banks separately.

Pekao

In 2021, Pekao launched the process of aligning its rating scale for internal rating models with the rating scale model applicable to external ratings – the so-called Masterscale, in accordance with the following table:

Description	Class
Investment classes	
High quality	AA, AA-
Robust repayment capacity	A+, A, A-
Adequate repayment capacity	BBB+, BBB, BBB-
Speculative classes	
Repayment likely, some degree of permanent uncertainty	BB+, BB, BB-
High risk of default	B+, B, B-
Very high risk	CCC
Default likely	CC, C

At the end of 2022, the rating models within the corporate/enterprise customer segment and individual clients within the retail client segment were mapped onto the Masterscale.

Retail customer portfolio (unimpaired) covered by the rating model – gross carrying amount 31 December 2022	Basket 1	Basket 2	Basket 3 and POCI	Total
Microenterprises	3,200	321	-	3,521
Class 1 (0% ≤ PD < 0.06%)	13	-	-	13
Class 2 (0.06% ≤ PD < 0.14%)	243	1	-	244
Class 3 (0.14% ≤ PD < 0.35%)	549	6	-	555
Class 4 (0.35% ≤ PD < 0.88%)	746	41	-	787
Class 5 (0.88% ≤ PD < 2.10%)	707	52	-	759
Class 6 (2.10% ≤ PD < 4.00%)	392	50	-	442
Class 7 (4.00% ≤ PD < 7.00%)	316	42	-	358
Class 8 (7.00% ≤ PD < 12.00%)	158	27	-	185
Class 9 (12.00% ≤ PD < 22.00%)	67	41	-	108
Class 10 (22.00% ≤ PD < 100%)	9	61	-	70

Retail customer portfolio (unimpaired) covered by the rating model – gross carrying amount 31 December 2022	Basket 1	Basket 2	Basket 3 and POCI	Total
Mortgage-backed residential loans(Masterscale)	55,025	3,500	-	58,525
AA (0% <= PD <= 0.01000%)	1,161	11	-	1,172
AA- (0.01000% < PD <= 0.01700%)	1,404	6	-	1,410
A+(0.01700% < PD <= 0.02890%)	2,740	32	-	2,772
A(0.02890% < PD <= 0.04913%)	4,548	48	-	4,596
A-(0.04193% < PD <= 0.08352%)	6,403	60	-	6,463
BBB+(0.08352% < PD <= 0.14199%)	8,170	107	-	8,277
BBB(0.14199% < PD <= 0.24138%)	9,120	132	-	9,252
BBB-(0.24138% < PD <= 0.41034%)	8,305	200	-	8,505
BB+(0.41034% < PD <= 0.69758%)	5,932	175	-	6,107
BB(0.69758% < PD <= 1.18588%)	3,900	110	-	4,010
BB-(1.18588% < PD <= 2.01599%)	1,962	254	-	2,216
B+(2.01599% < PD <= 3.42719%)	783	510	-	1,293
B(3.42719% < PD <= 5.82622%)	318	470	-	788
B-(5.82622% < PD <= 9.90458%)	124	440	-	564
CCC(9.90458% < PD <= 16.83778%)	61	337	-	398
CC(16.83778% < PD <= 28.62423%)	47	238	-	285
C(28.62423% < PD <= 100%)	47	370	-	417
Cash (consumer) loans (Masterscale)	8,190	1,959	-	10,149
AA (0% <= PD <= 0.01000%)	27	1	-	28
AA- (0.01000% < PD <= 0.01700%)	33	1	-	34
A+(0.01700% < PD <= 0.02890%)	67	2	-	69
A(0.02890% < PD <= 0.04913%)	134	3	-	137
A-(0.04193% < PD <= 0.08352%)	252	11	-	263
BBB+(0.08352% < PD <= 0.14199%)	406	14	-	420
BBB(0.14199% < PD <= 0.24138%)	599	25	-	624
BBB-(0.24138% < PD <= 0.41034%)	891	45	-	936
BB+(0.41034% < PD <= 0.69758%)	1,113	82	-	1,195
BB(0.69758% < PD <= 1.18588%)	1,193	129	-	1,322
BB-(1.18588% < PD <= 2.01599%)	1,231	194	-	1,425
B+(2.01599% < PD <= 3.42719%)	1,023	254	-	1,277
B(3.42719% < PD <= 5.82622%)	682	262	-	944
B-(5.82622% < PD <= 9.90458%)	351	244	-	595
CCC(9.90458% < PD <= 16.83778%)	139	200	-	339
CC(16.83778% < PD <= 28.62423%)	48	166	-	214
C(28.62423% < PD <= 100%)	1	326	-	327

Retail customer portfolio (unimpaired) covered by the rating model – gross carrying amount 31 December 2022	Basket 1	Basket 2	Basket 3 and POCI	Total
Credit cards (Masterscale)	636	128	-	764
AA (0% <= PD <= 0.01000%)	51	8	-	59
AA- (0.01000% < PD <= 0.01700%)	24	4	-	28
A+(0.01700% < PD <= 0.02890%)	33	4	-	37
A(0.02890% < PD <= 0.04913%)	40	4	-	44
A-(0.04913% < PD <= 0.08352%)	51	5	-	56
BBB+(0.08352% < PD <= 0.14199%)	60	6	-	66
BBB(0.14199% < PD <= 0.24138%)	63	6	-	69
BBB-(0.24138% < PD <= 0.41034%)	68	8	-	76
BB+(0.41034% < PD <= 0.69758%)	71	8	-	79
BB(0.69758% < PD <= 1.18588%)	57	6	-	63
BB-(1.18588% < PD <= 2.01599%)	49	4	-	53
B+(2.01599% < PD <= 3.42719%)	38	3	-	41
B(3.42719% < PD <= 5.82622%)	26	2	-	28
B-(5.82622% < PD <= 9.90458%)	5	16	-	21
CCC(9.90458% < PD <= 16.83778%)	-	16	-	16
CC(16.83778% < PD <= 28.62423%)	-	11	-	11
C(28.62423% < PD <= 100%)	-	17	-	17
Renewable limits	216	13	-	229
AA (0% <= PD <= 0.01000%)	5	-	-	5
AA- (0.01000% < PD <= 0.01700%)	4	-	-	4
A+(0.01700% < PD <= 0.02890%)	7	-	-	7
A(0.02890% < PD <= 0.04913%)	11	-	-	11
A-(0.04913% < PD <= 0.08352%)	16	-	-	16
BBB+(0.08352% < PD <= 0.14199%)	21	-	-	21
BBB(0.14199% < PD <= 0.24138%)	27	-	-	27
BBB-(0.24138% < PD <= 0.41034%)	27	-	-	27
BB+(0.41034% < PD <= 0.69758%)	28	-	-	28
BB(0.69758% < PD <= 1.18588%)	25	-	-	25
BB-(1.18588% < PD <= 2.01599%)	19	-	-	19
B+(2.01599% < PD <= 3.42719%)	13	-	-	13
B(3.42719% < PD <= 5.82622%)	9	-	-	9
B-(5.82622% < PD <= 9.90458%)	3	3	-	6
CCC(9.90458% < PD <= 16.83778%)	1	4	-	5
CC(16.83778% < PD <= 28.62423%)	-	3	-	3
C(28.62423% < PD <= 100%)	-	3	-	3
Total retail customer segment	67,267	5,921	-	73,188

Retail customer portfolio (unimpaired) covered by the rating model – gross carrying amount 31 December 2021	Basket 1	Basket 2	Basket 3 and POCI	Total
Microenterprises	3,813	964	-	4,777
Class 1 (0% ≤ PD < 0.06%)	19	4	-	23
Class 2 (0.06% ≤ PD < 0.14%)	230	22	-	252
Class 3 (0.14% ≤ PD < 0.35%)	555	52	-	607
Class 4 (0.35% ≤ PD < 0.88%)	634	69	-	703
Class 5 (0.88% ≤ PD < 2.10%)	715	94	-	809
Class 6 (2.10% ≤ PD < 4.00%)	560	85	-	645
Class 7 (4.00% ≤ PD < 7.00%)	653	131	-	784
Class 8 (7.00% ≤ PD < 12.00%)	312	91	-	403
Class 9 (12.00% ≤ PD < 22.00%)	135	114	-	249
Class 10 (22.00% ≤ PD < 100%)	-	302	-	302
Mortgage-backed residential loans	55,288	8,515	-	63,803
Class 1 (0.00% ≤ PD < 0.06%)	9,482	359	-	9,841
Class 2 (0.06% ≤ PD < 0.19%)	4,810	268	-	5,078
Class 3 (0.19% ≤ PD < 0.35%)	26,605	3,234	-	29,839
Class 4 (0.35% ≤ PD < 0.73%)	13,547	2,635	-	16,182
Class 5 (0.73% ≤ PD < 3.50%)	622	960	-	1,582
Class 6 (3.50% ≤ PD < 14.00%)	154	474	-	628
Class 7 (14.00% ≤ PD < 100.00%)	68	585	-	653
Cash (consumer) loans	9,409	1,429	-	10,838
Class 1 (0.00% ≤ PD < 0.09%)	913	86	-	999
Class 2 (0.09% ≤ PD < 0.18%)	1,644	64	-	1,708
Class 3 (0.18% ≤ PD < 0.39%)	2,942	73	-	3,015
Class 4 (0.39% ≤ PD < 0.90%)	2,313	62	-	2,375
Class 5 (0.90% ≤ PD < 2.60%)	1,294	240	-	1,534
Class 6 (2.60% ≤ PD < 9.00%)	250	414	-	664
Class 7 (9.00% ≤ PD < 30.00%)	53	291	-	344
Class 8 (30.00% ≤ PD < 100.00%)	-	199	-	199
Renewable limits	139	77	-	216
Class 1 (0.00% ≤ PD < 0.02%)	6	3	-	9
Class 2 (0.02% ≤ PD < 0.11%)	34	12	-	46
Class 3 (0.11% ≤ PD < 0.35%)	42	21	-	63
Class 4 (0.35% ≤ PD < 0.89%)	40	15	-	55
Class 5 (0.89% ≤ PD < 2.00%)	8	13	-	21
Class 6 (2.00% ≤ PD < 4.80%)	6	8	-	14
Class 7 (4.80% ≤ PD < 100.00%)	3	5	-	8
Total retail customer segment	68,649	10,985	-	79,634

Corporate segment portfolio (unimpaired) covered by the rating model – gross carrying amount	31 December 2022				31 December 2021			
	Basket 1	Basket 2	Basket 3 and POCI	Total	Basket 1	Basket 2	Basket 3 and POCI	Total
Large enterprises (Masterscale)	23,516	2,745	-	26,261	21,976	1,629	-	23,605
AA (0% <= PD <= 0.01000%)	8	-	-	8	59	-	-	59
AA- (0.01000% < PD <= 0.01700%)	-	-	-	-	-	-	-	-
A+ (0.01700% < PD <= 0.02890%)	-	-	-	-	-	-	-	-
A (0.02890% < PD <= 0.04913%)	1	-	-	1	3	-	-	3
A- (0.04913% < PD <= 0.08352%)	3	-	-	3	6	-	-	6
BBB+(0.08352% < PD <= 0.14199%)	82	-	-	82	1,560	1	-	1,561
BBB(0.14199% < PD <= 0.24138%)	779	114	-	893	306	5	-	311
BBB-(0.24138% < PD <= 0.41034%)	2,550	12	-	2,562	1,039	56	-	1,095
BB+(0.41034% < PD <= 0.69758%)	3,534	-	-	3,534	2,576	22	-	2,598
BB (0.69758% < PD <= 1.18588%)	4,146	25	-	4,171	4,124	69	-	4,193
BB- (1.18588% < PD <= 2.01599%)	4,000	200	-	4,200	3,675	83	-	3,758
B+ (2.01599% < PD <= 3.42719%)	2,929	913	-	3,842	4,036	79	-	4,115
B (3.42719% < PD <= 5.82622%)	2,419	392	-	2,811	1,655	26	-	1,681
B- (5.82622% < PD <= 9.90458%)	2,554	437	-	2,991	2,411	787	-	3,198
CCC(9.90458% < PD <= 16.83778%)	465	626	-	1,091	480	494	-	974
CC (16.83778% < PD <= 28.62423%)	21	26	-	47	38	3	-	41
C (28.62423% < PD <= 100%)	25	-	-	25	8	4	-	12
Small and medium-sized enterprises (Masterscale)	18,619	3,519	-	22,138	15,368	2,175	-	17,543
AA (0% <= PD <= 0.01000%)	4	-	-	4	-	-	-	-
AA- (0.01000% < PD <= 0.01700%)	-	-	-	-	-	-	-	-
A+ (0.01700% < PD <= 0.02890%)	3	-	-	3	-	-	-	-
A (0.02890% < PD <= 0.04913%)	29	-	-	29	25	1	-	26
A- (0.04913% < PD <= 0.08352%)	107	-	-	107	69	2	-	71
BBB+(0.08352% < PD <= 0.14199%)	401	4	-	405	339	2	-	341
BBB(0.14199% < PD <= 0.24138%)	1,005	52	-	1,057	1,469	5	-	1,474
BBB-(0.24138% < PD <= 0.41034%)	2,450	43	-	2,493	1,336	17	-	1,353
BB+(0.41034% < PD <= 0.69758%)	2,168	52	-	2,220	2,448	79	-	2,527
BB (0.69758% < PD <= 1.18588%)	3,099	158	-	3,257	2,170	90	-	2,260
BB- (1.18588% < PD <= 2.01599%)	3,023	447	-	3,470	1,865	203	-	2,068
B+ (2.01599% < PD <= 3.42719%)	1,320	492	-	1,812	2,149	152	-	2,301
B (3.42719% < PD <= 5.82622%)	2,041	325	-	2,366	1,447	342	-	1,789
B- (5.82622% < PD <= 9.90458%)	2,639	944	-	3,583	1,776	522	-	2,298
CCC(9.90458% < PD <= 16.83778%)	275	807	-	1,082	223	652	-	875
CC (16.83778% < PD <= 28.62423%)	38	141	-	179	52	59	-	111
C (28.62423% < PD <= 100%)	17	54	-	71	-	49	-	49

Corporate segment portfolio (unimpaired) covered by the rating model – gross carrying amount	31 December 2022				31 December 2021			
	Basket 1	Basket 2	Basket 3 and POCI	Total	Basket 1	Basket 2	Basket 3 and POCI	Total
Enterprises covered by the rating model of Pekao Bank Hipoteczny SA	281	119	-	400	330	178	-	508
Class 1	185	42	-	227	112	5	-	117
Class 2	95	28	-	123	201	18	-	219
Class 3	1	16	-	17	16	73	-	89
Class 4	-	6	-	6	1	8	-	9
Class 5	-	12	-	12	-	48	-	48
Class 6	-	9	-	9	-	16	-	16
Class 7	-	6	-	6	-	10	-	10
Total corporate segment	42,416	6,383	-	48,799	37,674	3,982	-	41,656

Local government units (unimpaired) covered by the rating model – gross carrying amount	31 December 2022				31 December 2021			
	Basket 1	Basket 2	Basket 3 and POCI	Total	Basket 1	Basket 2	Basket 3 and POCI	Total
AA (0% <= PD <= 0.01000%)	-	-	-	-	-	-	-	-
AA- (0.01000% < PD <= 0.01700%)	-	-	-	-	-	-	-	-
A+ (0.01700% < PD <= 0.02890%)	-	-	-	-	-	-	-	-
A (0.02890% < PD <= 0.04913%)	-	-	-	-	1	-	-	1
A- (0.04913% < PD <= 0.08352%)	3	-	-	3	139	-	-	139
BBB+ (0.08352% < PD <= 0.14199%)	151	-	-	151	25	-	-	25
BBB (0.14199% < PD <= 0.24138%)	248	-	-	248	218	-	-	218
BBB- (0.24138% < PD <= 0.41034%)	128	-	-	128	117	-	-	117
BB+ (0.41034% < PD <= 0.69758%)	216	-	-	216	533	-	-	533
BB (0.69758% < PD <= 1.18588%)	106	-	-	106	26	-	-	26
BB- (1.18588% < PD <= 2.01599%)	18	-	-	18	138	-	-	138
B+ (2.01599% < PD <= 3.42719%)	-	-	-	-	-	-	-	-
B (3.42719% < PD <= 5.82622%)	-	-	-	-	-	-	-	-
B- (5.82622% < PD <= 9.90458%)	-	-	-	-	-	-	-	-
CCC (9.90458% < PD <= 16.83778%)	-	-	-	-	-	-	-	-
CC (16.83778% < PD <= 28.62423%)	-	-	-	-	-	-	-	-
C (28.62423% < PD <= 100%)	-	-	-	-	-	-	-	-
Total local government units	870	-	-	870	1,197	-	-	1,197

Portfolio of specialized lending exposures within the meaning of the CRR – unimpaired – by supervisory classes – gross carrying amount	31 December 2022				31 December 2021			
	Basket 1	Basket 2	Basket 3 and POCI	Total	Basket 1	Basket 2	Basket 3 and POCI	Total
High	597	-	-	597	497	8	-	505
Good	8,917	136	-	9,053	3,111	2,100	-	5,211
Satisfactory	364	1,800	-	2,164	98	562	-	660
Poor	-	2	-	2	-	3	-	3
Total	9,878	1,938	-	11,816	3,706	2,673	-	6,379

Portfolio	31 December 2022			31 December 2021		
	Gross carrying amount	Impairment allowance	Net carrying amount	Gross carrying amount	Impairment allowance	Net carrying amount
Exposures without recognized impairment	156,869	(2,134)	154,735	157,095	(1,669)	155,426
Portfolio covered by the rating model for the retail customer segment						
Microenterprises	73,188	(1,026)	72,162	79,634	(571)	79,063
Retail clients	3,521	(30)	3,491	4,777	(45)	4,732
Mortgage-backed residential loans	69,667	(996)	68,671	74,857	(526)	74,331
Cash (consumer) loans	58,525	(561)	57,964	63,803	(205)	63,598
Credit cards	10,149	(392)	9,757	10,838	(316)	10,522
Renewable limits	764	(35)	729	n/a	n/a	n/a
Portfolio covered by the rating model for the corporate segment	229	(8)	221	216	(5)	211
Large enterprises (Masterscale)	48,799	(586)	48,213	41,656	(337)	41,319
Small and medium-sized enterprises (Masterscale)	26,261	(272)	25,989	23,605	(154)	23,451
Corporate segment covered by the rating model of Pekao Bank Hipoteczny SA	22,138	(303)	21,835	17,543	(181)	17,362
Portfolio covered by the rating model for the local government unit segment (Masterscale)	400	(11)	389	508	(2)	506
Specialized lending exposures	870	(1)	869	1,197	(2)	1,195
Exposures not covered by the internal rating model	11,816	(248)	11,568	6,379	(147)	6,232
Exposures with recognized impairment	22,196	(273)	21,923	28,229	(612)	27,617
Exposures with recognized impairment	11,159	(7,861)	3,298	9,091	(6,073)	3,018
Total receivables from clients on account of impaired loans¹⁾	168,028	(9,995)	158,033	166,186	(7,742)	158,444

¹⁾ Loan receivables from clients are measured at amortized cost or at fair value through other comprehensive income.

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Loan receivables from clients - outstanding	31 December 2022				31 December 2021			
	Basket 1	Basket 2	Basket 3 and POCI	Total	Basket 1	Basket 2	Basket 3 and POCI	Total
Retail segment	31,068	1,485	-	32,553	32,676	1,179	-	33,855
PD < 0.18%	9,460	173	-	9,633	10,869	150	-	11,019
0.18% <= PD < 0.28%	950	12	-	962	1,860	20	-	1,880
0.28% <= PD < 0.44%	4,312	129	-	4,441	2,373	43	-	2,416
0.44% <= PD < 0.85%	2,537	56	-	2,593	2,902	22	-	2,924
0.85% <= PD < 1.33%	2,580	57	-	2,637	3,088	36	-	3,124
1.33% <= PD < 2.06%	3,717	78	-	3,795	3,354	53	-	3,407
2.06% <= PD < 3.94%	3,406	154	-	3,560	2,849	78	-	2,927
3.94% <= PD < 9.10%	2,075	103	-	2,178	3,993	344	-	4,337
PD => 9.1%	1,966	723	-	2,689	1,345	433	-	1,778
No scoring	65	-	-	65	43	-	-	43
Business segment	15,354	3,974	-	19,328	13,709	4,452	-	18,161
PD < 0.28%	16	-	-	16	77	1	-	78
0.28% <= PD < 0.44%	706	37	-	743	376	-	-	376
0.44% <= PD < 0.85%	1,727	195	-	1,922	308	69	-	377
0.85% <= PD < 1.33%	1,019	110	-	1,129	1,849	218	-	2,067
1.33% <= PD < 2.06%	2,948	257	-	3,205	1,811	217	-	2,028
2.06% <= PD < 3.94%	4,173	402	-	4,575	4,576	315	-	4,891
3.94% <= PD < 9.1%	3,246	1,477	-	4,723	3,452	1,320	-	4,772
PD => 9.1%	1,087	1,496	-	2,583	1,098	2,312	-	3,410
No scoring	432	-	-	432	162	-	-	162
Total non past due receivables from clients, without impairment	46,422	5,459	-	51,881	46,385	5,631	-	52,016

Past due loan receivables from clients	31 December 2022	31 December 2021
Basket 1 and Basket 2	2,618	2,552
Retail segment	1,701	1,438
Business segment	917	1,114
Basket 3	1,509	1,883
Retail segment	556	645
Business segment	953	1,238
POCI	252	400
Retail segment	108	125
Business segment	144	275
Total past due assets	4,379	4,835

8.5.1.3. Restructured exposures

A restructured exposure is an exposure whose terms of repayment have been changed during the life of the liability in respect of a debtor experiencing or is likely to experience financial difficulties. The change of contractual terms includes a variety of restructuring activities, such as:

- extending the lending period (in the form of an annex to the agreement) or signing a restructuring agreement (in the case of debt that is fully overdue), which results in reduction of the principal and interest installment;
- change of terms and conditions of the agreement allowing for lower interest or principal repayments;
- agreement subject to refinancing.

A restructured exposure that is classified as non-performing (either due to restructuring measures taken or prior to the taking of any restructuring measures) or that has been reclassified from performing to non-performing, including as a result of a restructured exposure being overdue by more than 30 days during the contingency period, is considered a non-performing restructured exposure (technically: forbore exposure).

In the case of granting a loan moratorium period, the PZU Group applies an approach consistent with the regulatory guidance in this respect and does not classify such items automatically as forbore.

Loan receivables from clients	31 December 2022						31 December 2021						
	Basket 1	Basket 2	Basket 3		POCI	Total	Basket 1	Basket 2	Basket 3		POCI	Total	
			Individual analysis	Group analysis					Individual analysis	Group analysis			
Measured at amortized cost													
Gross forbore exposures	238	1,896	2,281	1,241	1,950	7,606	1,033	987	2,708	1,125	1,859	7,712	
Impairment loss	(5)	(143)	(1,064)	(639)	(1,504)	(3,355)	(6)	(110)	(1,205)	(628)	(1,486)	(3,435)	
Net forbore exposures	233	1,753	1,217	602	446	4,251	1,027	877	1,503	497	373	4,277	
Measured at fair value through profit or loss	X	X	X	X	X	-	X	X	X	X	X	1	
Total	233	1,753	1,217	602	446	4,251	1,027	877	1,503	497	374	4,278	

Movement in net carrying amount of forbore exposures	1 January – 31 December 2022	1 January – 31 December 2021
Opening balance	4,278	4,462
Value of exposures recognized in the period	2,097	1,704
Value of exposures excluded in the period	(1,900)	(1,172)
Movements in impairment losses	150	(28)
Other changes	(374)	(688)
Total net receivables	4,251	4,278

8.5.1.4. Credit risk arising out of investing activity

The management principles for credit risk arising from investing activity in the PZU Group are governed by a number of documents approved by supervisory boards, management boards and dedicated committees.

Credit risk exposures to respective counterparties and issuers are subject to restrictions based on exposure limits. The limits are established by dedicated committees, based on the analyses of risks associated with a given exposure and taking into account the financial standing of entities or groups of related entities and the impact of such exposures on the occurrence of concentration risk. Qualitative restrictions on exposures established by individual committees in accordance with their powers form an additional factor mitigating the credit risk and concentration risk identified in investment activities.

The limits refer to exposure limits to a single entity or a group of affiliated entities (this applies to both credit limits and concentration limits). The use of credit risk and concentration risk limits is subject to monitoring and reporting. If the limit is exceeded, appropriate actions, as defined in internal regulations, are taken.

Credit risk assessment of an entity is based on internal credit ratings (the approach to rating differs by type of entity). Ratings are based on quantitative and qualitative analyses and form one of the key elements of the process of setting exposure limits. The credit quality of counterparties and issuers is regularly monitored. One of the basic elements of monitoring is a regular update of internal ratings.

Risk units identify, measure and monitor exposure to credit risk and concentration risk related to investment activity, in particular they give opinions on requests to set exposure limits referred to individual committees.

Information on the credit quality of assets related to investing activity is presented in section 39.

Exposure to credit risk

The following tables present the exposure of credit risk assets to credit risk broken down by ratings granted by external rating agencies. Credit risk exposures arising from conditional transactions are presented as an exposure to the issuer of the underlying securities.

The tables do not include loan receivables from clients and receivables due under insurance contracts. This was because these asset portfolios are very dispersed and therefore contains a significant percentage of receivables from unrated entities and individuals.

Credit risk assets as at 31 December 2022	Basket 1	Basket 2	Basket 3	POCI	Total
Debt securities measured at amortized cost – carrying amount	91,428	208	-	10	91,646
– gross carrying amount	91,515	236	24	63	91,838
– from AAA to A	65,085	-	-	-	65,085
– from BBB to B	1,959	141	-	-	2,100
– no rating	24,471	95	24	63	24,653
– write-off for expected credit losses	(87)	(28)	(24)	(53)	(192)
Debt securities measured at fair value through other comprehensive income – carrying amount	38,719	237	-	-	38,956
– from AAA to A	30,380	-	-	-	30,380
– from BBB to B	4,518	123	-	-	4,641
– no rating	3,821	114	-	-	3,935
– write-off for expected credit losses ¹⁾	(45)	(21)	-	-	(66)
Debt securities measured at fair value through profit or loss – carrying amount	X	X	X	X	2,469
– from AAA to A	X	X	X	X	1,313
– from BBB to B	X	X	X	X	99
– no rating	X	X	X	X	153
– assets at the client's risk	X	X	X	X	904
Term deposits with credit institutions and buy-sell-back transactions – carrying amount	9,884	129	126	-	10,139
– gross carrying amount	9,885	140	136	-	10,161
– from AAA to A	575	-	-	-	575
– from BBB to B	1,437	-	-	-	1,437
– no rating	7,852	140	136	-	8,128
– assets at the client's risk	21	-	-	-	21
– write-off for expected credit losses	(1)	(11)	(10)	-	(22)
Loans – carrying amount	4,269	-	-	-	4,269
– gross carrying amount	4,300	-	-	-	4,300
– from BBB to B	170	-	-	-	170
– no rating	4,130	-	-	-	4,130
– write-off for expected credit losses	(31)	-	-	-	(31)
Derivatives	X	X	X	X	16,197
– from AAA to A	X	X	X	X	4,394
– from BBB to B	X	X	X	X	670
– no rating	X	X	X	X	11,113
– assets at the client's risk	X	X	X	X	20
Reinsurers' share in claims provisions	X	X	X	X	2,429
– from AAA to A	X	X	X	X	2,129
– from BBB to B	X	X	X	X	16
– no rating	X	X	X	X	284
Reinsurance receivables	X	X	X	X	54
– from AAA to A	X	X	X	X	31
– no rating	X	X	X	X	23
Total	144,300	574	126	10	166,159

¹⁾ The write-off is recognized in revaluation reserve and it does not lower the carrying amount of assets.

Credit risk assets as at 31 December 2021	Basket 1	Basket 2	Basket 3	POCI	Total
Debt securities measured at amortized cost – carrying amount	73,828	346	-	9	74,183
– gross carrying amount	73,897	354	35	39	74,325
– from AAA to A	60,350	-	-	-	60,350
– from BBB to B	1,242	35	-	-	1,277
– no rating	12,305	319	35	39	12,698
– write-off for expected credit losses	(69)	(8)	(35)	(30)	(142)
Debt securities measured at fair value through other comprehensive income – carrying amount	44,788	251	-	-	45,039
– from AAA to A	35,806	-	-	-	35,806
– from BBB to B	5,117	127	-	-	5,244
– no rating	3,865	124	-	-	3,989
– write-off for expected credit losses ¹⁾	(54)	(26)	-	-	(80)
Debt securities measured at fair value through profit or loss – carrying amount	X	X	X	X	2,466
– from AAA to A	X	X	X	X	1,142
– from BBB to B	X	X	X	X	171
– no rating	X	X	X	X	145
– assets at the client's risk	X	X	X	X	1,008
Term deposits with credit institutions and buy-sell-back transactions – carrying amount	5,501	-	-	-	5,501
– gross carrying amount	5,502	-	-	-	5,502
– from AAA to A	796	-	-	-	796
– from BBB to B	519	-	-	-	519
– no rating	4,167	-	-	-	4,167
– assets at the client's risk	20	-	-	-	20
– write-off for expected credit losses	(1)	-	-	-	(1)
Loans – carrying amount	3,517	69	-	-	3,586
– gross carrying amount	3,522	75	-	-	3,597
– from BBB to B	150	-	-	-	150
– no rating	3,372	75	-	-	3,447
– write-off for expected credit losses	(5)	(6)	-	-	(11)
Derivatives	X	X	X	X	8,328
– from AAA to A	X	X	X	X	6,632
– from BBB to B	X	X	X	X	882
– no rating	X	X	X	X	782
– assets at the client's risk	X	X	X	X	32
Reinsurers' share in claims provisions	X	X	X	X	1,399
– from AAA to A	X	X	X	X	1,192
– from BBB to B	X	X	X	X	8
– no rating	X	X	X	X	199
Reinsurance receivables	X	X	X	X	63
– from AAA to A	X	X	X	X	35
– no rating	X	X	X	X	28
Total	127,634	666	-	9	140,565

¹⁾ The write-off is recognized in revaluation reserve and it does not lower the carrying amount of assets.

8.5.1.5. Reinsurer's credit risk in insurance activity

PZU Group enters into proportional and non-proportional reinsurance contracts aiming to reduce liabilities arising from its core business. Reinsurance is exposed to credit risk associated with the risk that a reinsurer default on its obligations.

Assessment of reinsurers' creditworthiness is conducted based on market data, information obtained from external sources and also based on an internal model. The model divides reinsurers into several classes, depending on the estimated risk level. A reinsurer will not be accepted if its risk is higher than a pre-defined cut-off point. The acceptance is not automatic and the analysis

is supplemented by assessments by reinsurance brokers. In the credit risk monitoring process, this assessment is updated on a quarterly basis.

The following tables present the credit risk of the reinsurers that cooperated with PZU Group companies.

Reinsurer	Reinsurers' share in technical provisions (net) as at 31 December 2022	Best A.M.'s rating as at 31 December 2022 ¹⁾
Reinsurer 1	542	A+
Reinsurer 2	305	A+
Reinsurer 3	327	unrated
Reinsurer 4	181	AA-
Reinsurer 5	170	A+
Reinsurer 6	164	A+
Reinsurer 7	148	A
Reinsurer 8	136	A+
Reinsurer 9	117	A++
Reinsurer 10	93	AA-
Others, including: ²⁾	1,832	
With investment-grade rating	1,616	
With sub-investment grade rating or unrated	216	
Total	4,015	

¹⁾ In the absence of Best A.M.'s rating, a rating from Standard&Poor's has been included.

²⁾ "Others" includes reinsurers' shares in technical provisions if their carrying amounts are lower than those presented above.

Reinsurer	Reinsurers' share in technical provisions (net) as at 31 December 2021	Best A.M.'s rating as at 31 December 2021 ¹⁾
Reinsurer 1	268	A+
Reinsurer 2	215	unrated
Reinsurer 3	168	A+
Reinsurer 4	129	A++
Reinsurer 5	126	AA-
Reinsurer 6	117	A+
Reinsurer 7	89	AA-
Reinsurer 8	76	A+
Reinsurer 9	58	A+
Reinsurer 10	50	A+
Others, including: ²⁾	1,244	
With investment-grade rating	1,110	
With sub-investment grade rating or unrated	134	
Total	2,540	

¹⁾ In the absence of Best A.M.'s rating, a rating from Standard&Poor's has been included.

²⁾ "Others" includes reinsurers' shares in technical provisions if their carrying amounts are lower than those presented above.

Counterparty risk related to reinsurance is mitigated by the fact that the PZU Group cooperates with numerous reinsurers with reliable credit ratings.

8.5.1.6. Risk concentration in credit risk

The following table presents the concentration of PZU Group's balance-sheet and off-balance-sheet exposures using the sections of the Polish Classification of Business Activity (PKD):

- exposure to financial investments such as equity instruments, debt securities, loans granted buy-sell-back transactions, bank accounts and term deposits;
- amounts of extended insurance guarantees;

- liability limits for insurance of receivables;
- value of loans (gross carrying amount and off-balance sheet exposure).

Industry segment	31 December 2022	31 December 2021
O. Public administration and defense, compulsory social security	26.15%	16.08%
K. Financial and insurance activities	15.14%	11.94%
C. Manufacturing	16.67%	16.27%
G. Wholesale and retail trade services; repair services of motor vehicles and motorcycles	11.26%	13.51%
L. Real estate activities	5.84%	8.12%
F. Construction	4.44%	5.65%
M. Professional, scientific and technical activity	4.09%	5.24%
H. Transportation and storage	3.70%	5.51%
D. Electricity, gas, steam, hot water and air conditioning supply	3.18%	4.63%
J. Information and communication	2.12%	2.74%
B. Mining and quarrying	0.87%	1.08%
Other sectors	6.54%	9.23%
Total	100.00%	100.00%

8.5.2. Actuarial risk (non-life and life insurance)

Actuarial risk is the possibility of loss or of adverse change in the value of liabilities under the executed insurance agreements and insurance guarantee agreements, due to inadequate premium pricing and technical provisioning assumptions. Actuarial risk includes:

	Non-life insurance	Life insurance
Longevity risk – the risk of loss, or of adverse change in the value of insurance liabilities, resulting from changes in the level, trend, or volatility of mortality rates, where a decrease in the mortality rate leads to an increase in the value of insurance liabilities.	X	X
Expense risk – the risk of loss, or of adverse change in the value of insurance liabilities, resulting from changes in the level, trend, or volatility of the expenses incurred in servicing insurance or reinsurance contracts.	X	X
Lapse risk – the risk of loss, or of adverse change in the value of insurance liabilities, resulting from changes in the level or volatility of the rates of policy lapses, terminations, renewals and surrenders.	X	X
Catastrophe risk – the risk of loss, or of adverse change in the value of insurance liabilities, resulting from the significant uncertainty of pricing and technical provisioning assumptions related to extreme or irregular events.	X	X
Premium risk – risk of inadequate estimation of tariff rates and possible deviations of written premiums from the expected level, resulting from fluctuations in the timing, frequency and severity of insured events.	X	n/a
Provisioning risk – risk of inadequate estimation of technical provisioning levels and the possibility of fluctuations of actual losses around their statistical average because of the stochastic nature of future claims payments.	X	n/a
Revision risk – the risk of loss, or of adverse change in the value of insurance liabilities, resulting from fluctuations in the level, trend, or volatility of the revision rates applied to annuities, due to changes in the legal environment or health of the person insured.	X	n/a
Mortality risk – the risk of loss, or of adverse change in the value of insurance liabilities, resulting from changes in the level, trend, or volatility of mortality rates, where an increase in the mortality rate leads to an increase in the value of insurance liabilities.	n/a	X
Morbidity (disability) risk – the risk of loss, or of adverse change in the value of insurance liabilities, resulting from changes in the level, trend or volatility of disability, sickness and morbidity rates.	n/a	X

PZU Group manages its actuarial risk among others through:

- calculation and monitoring of adequacy of technical provisions;
- tariff strategy and monitoring of premium adequacy;
- underwriting;
- reinsurance.

Calculation and monitoring of adequacy of technical provisions

PZU Group manages its technical provisioning adequacy risk by using appropriate calculation methodology and by controlling provision calculation processes. The provisioning policy is based on:

- prudent approach to the calculation of technical provisions;
- continuity principle, which entails making no changes in the technical provisioning methodology if no significant circumstances occur to justify such changes.

For non-life insurance, the level of technical provisions is evaluated once a month and in specific circumstances (when a payment is made or new information obtained from adjusters or lawyers) their amount is updated. The historical developments and payments of technical provisions over the years are used in the current analyses of technical provisions. This analysis provides an assessment of precision of the current actuarial methods.

For life insurance products, the main sources of data used to estimate the expected frequency of claims include public statistical data (life expectancy tables) published by specialized statistical institutions and analysis of historical insurance portfolio data. Periodic statistical analysis of claim incidence are made at the level of product groups, individual insurance portfolios and properly defined homogeneous risk groups. These analyses form the basis for measuring relative incidence of events compared to publicly available statistical data. The use of appropriate statistical methods makes it possible to determine the significance of the determined statistics. Appropriate security surcharges are applied, as needed, in the establishment of technical provisions and risk valuation.

Estimation of technical provisions in the PZU Group is supervised by chief actuaries.

Tariff strategy and monitoring of premium adequacy

The objective of the tariff policy is to guarantee adequate level of premium (sufficient to cover current and future liabilities under in-force policies and expenditures). Along with developing a premium tariff or tariff changes, simulations are conducted with regard to the projected impact of the changes on the future results. Additionally, regular premium adequacy and portfolio profitability studies are carried out for each insurance type based on, among others, evaluation of the technical result on a product for a given financial year. The frequency and level of detail of analyses is adjusted to the materiality of the product and possible fluctuations of its result. If the insurance history is permanently unfavorable then measures are taken to restore the specified profitability level, which involve e.g. adjustment of the premium tariffs, change of the underwriting rules, modification of reinsurance contracts or change of the insured risk profile, through amendments to general terms of insurance.

Underwriting

The underwriting area functions regardless of the sales area, which means that the risk assessment and acceptance rules and the authority levels are defined in the area of underwriting. The process of selling insurance to corporate clients is preceded by a risk analysis and assessment carried out by the sales teams, within the powers they hold. For risks lying beyond the powers of the sales area, underwriting decisions are made by dedicated underwriting teams.

Reinsurance

The purpose of the PZU Group's reinsurance program in non-life insurance is to secure its core business by mitigating the risk of catastrophic events that may adversely affect the its financial position. This task is performed through obligatory reinsurance contracts supplemented by facultative reinsurance.

PZU Group limits its risk among others by way of:

- non-proportional excess of loss treaties, which protect the portfolios against catastrophic losses (e.g. flood, cyclone);
- non-proportional excess of loss treaties, which protect property, technical, marine, aviation, TPL (including motor TPL) portfolios against the effects of large single losses;

- non-proportional excess of loss treaty, which protects the agricultural crops portfolio;
- a proportional treaty, which protects the financial insurance portfolio.

Optimization of the reinsurance program in terms of protection against catastrophic claims is based on the results of internal analyses and uses third-party models.

8.5.2.1. Exposure to actuarial risk – non-life and life insurance

Key cost ratios in non-life insurance	1 January – 31 December 2022	1 January – 31 December 2021
Expense ratio	27.67%	27.33%
Net loss ratio	61.12%	61.15%
Reinsurer's retention ratio	9.45%	8.06%
Combined ratio	88.79%	88.48%

The expense ratio is the ratio of total acquisition expenses, administrative expenses, reinsurance commissions and profit participation, to the net earned premiums.

The net loss ratio is the ratio of claims and the net movement in technical provisions, to the net earned premiums.

The reinsurer's retention ratio is the ratio of the reinsurer's share in gross written premiums, to the gross written premiums.

The combined ratio is the ratio of the sum of acquisition expenses, administrative expenses, reinsurance commissions and profit participation, claims and net movement in technical provisions to the net earned premiums.

The following tables present the development of technical provisions and payments in successive reporting years.

Claims development in direct non-life insurance, gross (by reporting year)	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Provision at the end of the reporting period	11,783	13,312	13,163	13,181	13,990	14,975	15,627	16,540	17,303	19,065
Provision and total claim payments (from the end of the first reporting period to the end of the current reporting period, excluding payments made before the end of the first reporting period):										
– calculated 1 year later	12,241	13,032	12,908	13,353	14,251	14,929	15,833	16,048	16,876	
– calculated 2 years later	12,180	12,719	12,922	13,500	14,281	15,008	15,542	15,629		
– calculated 3 years later	12,080	12,822	13,135	13,518	14,438	14,839	15,286			
– calculated 4 years later	12,172	13,089	13,183	13,686	14,366	14,732				
– calculated 5 years later	12,439	13,172	13,353	13,677	14,362					
– calculated 6 years later	12,536	13,356	13,398	13,704						
– calculated 7 years later	12,713	13,406	13,446							
– calculated 8 years later	12,785	13,468								
– calculated 9 years later	12,885									
Sum total of the provision and total claim payments (from the end of the first reporting period to the end of the current reporting period, excluding payments made before the end of the first reporting period)	12,885	13,468	13,446	13,704	14,362	14,732	15,286	15,629	16,876	
Total claim payments (from the end of the first reporting period to the end of the current reporting period, excluding payments made before the end of the first reporting period)	7,884	7,985	7,536	7,187	6,981	6,344	5,409	4,034	3,032	
Provision recognized in the statement of financial position	5,001	5,483	5,910	6,517	7,381	8,388	9,877	11,595	13,844	
Difference between the provision at the end of the first year and the provision estimated at the end of the reporting period (<i>run-off result</i>)	(1,102)	(156)	(283)	(523)	(372)	243	341	911	427	
The above difference as % of provision at the end of the first year	-9%	-1%	-2%	-4%	-3%	2%	2%	6%	2%	

Claims development in direct non-life insurance, net of reinsurance (by reporting year)	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Provision at the end of the reporting period	11,453	12,814	12,653	12,559	12,880	13,484	13,933	14,545	15,053	15,717
Provision and total claim payments (from the end of the first reporting period to the end of the current reporting period, excluding payments made before the end of the first reporting period):										
– calculated 1 year later	11,787	12,525	12,355	12,576	13,066	13,362	13,952	14,089	14,648	
– calculated 2 years later	11,704	12,201	12,278	12,664	13,005	13,393	13,646	13,695		
– calculated 3 years later	11,599	12,224	12,473	12,615	13,112	13,227	13,383			
– calculated 4 years later	11,642	12,481	12,463	12,758	13,048	13,099				
– calculated 5 years later	11,891	12,515	12,623	12,781	13,012					
– calculated 6 years later	11,938	12,688	12,679	12,791						
– calculated 7 years later	12,109	12,750	12,711							
– calculated 8 years later	12,198	12,813								
– calculated 9 years later	12,294									
Sum total of the provision and total claim payments (from the end of the first reporting period to the end of the current reporting period, excluding payments made before the end of the first reporting period)	12,294	12,813	12,711	12,791	13,012	13,099	13,383	13,695	14,648	
Total claim payments (from the end of the first reporting period to the end of the current reporting period, excluding payments made before the end of the first reporting period)	7,576	7,678	7,202	6,752	6,311	5,564	4,739	3,466	2,564	
Provision recognized in the statement of financial position	4,718	5,135	5,509	6,039	6,701	7,535	8,644	10,229	12,084	
Difference between the provision at the end of the first year and the provision estimated at the end of the reporting period (<i>run-off result</i>)	(841)	1	(58)	(232)	(132)	385	550	850	405	
The above difference as % of provision at the end of the first year	-7%	0%	0%	-2%	-1%	3%	4%	6%	3%	

Motor insurance – motor own damage (autocasco) and motor TPL – is the core component of the PZU Group’s portfolio. Both types of insurance are generally concluded for one year, in which the loss must occur for the claim to be paid out. In the case of motor own damage, the time for reporting a loss is short and it is not the source of uncertainty. Motor TPL is a whole different situation – the period for reporting losses may be up to 30 years. The level of property losses is sensitive especially to the number of litigation claims reported and court rulings awarded in respective cases. In the case of TPL insurance contracts, new types of long-tail losses arise, which makes the process of estimating technical provisions much more complicated.

Risk concentration in non-life insurance

Within actuarial risk, the PZU Group identifies concentration risk with regard to possible losses caused by natural disasters, such as, in particular, floods and cyclones. The table below presents sums insured in the specified ranges, broken down by voivodeships (for operations conducted in Poland) and countries (for foreign operations). With regard to the exposure to the risk of floods and cyclones, the risk management system in the PZU Group allows to monitor it regularly and the reinsurance program in place reduces significantly the potential net catastrophic loss levels.

Exposure to catastrophic losses in property insurance	Sum insured (PLN million) 31 December 2022							Sum insured (PLN million) 31 December 2021						
	0-0.2	0.2-0.5	0.5-2	2-10	10-50	over 50	Sum	0-0.2	0.2-0.5	0.5-2	2-10	10-50	over 50	Sum
Dolnośląskie	0.6%	1.2%	1.4%	0.5%	0.4%	1.7%	5.8%	0.8%	1.4%	1.4%	0.5%	0.4%	2.0%	6.5%
Kujawsko-Pomorskie	0.5%	0.7%	0.6%	0.3%	0.3%	1.1%	3.5%	0.5%	0.7%	0.6%	0.3%	0.2%	1.1%	3.4%
Lubelskie	0.4%	0.6%	0.3%	0.1%	0.1%	1.1%	2.6%	0.5%	0.7%	0.3%	0.1%	0.1%	1.6%	3.3%
Lubuskie	0.2%	0.3%	0.3%	0.1%	0.1%	0.5%	1.5%	0.2%	0.3%	0.2%	0.1%	0.1%	0.5%	1.4%
Łódzkie	0.6%	1.0%	0.8%	0.3%	0.2%	3.5%	6.4%	0.6%	1.0%	0.7%	0.3%	0.2%	3.9%	6.7%
Małopolskie	0.6%	1.4%	1.1%	0.4%	0.4%	1.6%	5.5%	0.7%	1.5%	1.0%	0.4%	0.4%	1.4%	5.4%
Mazowieckie	1.6%	3.1%	2.8%	0.9%	1.1%	9.7%	19.2%	1.6%	3.1%	2.6%	0.9%	1.0%	9.1%	18.3%
Opolskie	0.2%	0.4%	0.3%	0.1%	0.1%	0.6%	1.7%	0.2%	0.4%	0.3%	0.1%	0.1%	1.6%	2.7%
Podkarpackie	0.4%	0.8%	0.4%	0.2%	0.2%	1.4%	3.4%	0.8%	1.1%	0.4%	0.2%	0.1%	1.4%	4.0%
Podlaskie	0.3%	0.4%	0.3%	0.2%	0.2%	0.5%	1.9%	0.3%	0.4%	0.3%	0.2%	0.2%	0.4%	1.8%
Pomorskie	0.5%	1.0%	1.0%	0.5%	0.6%	5.8%	9.4%	0.5%	1.0%	0.9%	0.5%	0.5%	4.8%	8.2%
Śląskie	0.9%	1.5%	1.4%	0.5%	1.5%	3.7%	9.5%	1.0%	1.5%	1.2%	0.5%	1.2%	3.9%	9.3%
Świętokrzyskie	0.3%	0.4%	0.2%	0.1%	0.1%	0.4%	1.5%	0.3%	0.5%	0.2%	0.1%	0.1%	0.6%	1.8%
Warmińsko-Mazurskie	0.3%	0.4%	0.4%	0.2%	0.1%	0.5%	1.9%	0.3%	0.5%	0.3%	0.2%	0.1%	1.2%	2.6%
Wielkopolskie	1.0%	1.8%	1.6%	0.7%	0.6%	2.6%	8.3%	1.0%	1.8%	1.4%	0.6%	0.5%	2.4%	7.7%
Zachodniopomorskie	0.3%	0.5%	0.5%	0.4%	0.4%	1.5%	3.6%	0.3%	0.5%	0.5%	0.4%	0.3%	2.2%	4.2%
Lithuania and Estonia	0.4%	2.2%	3.1%	1.1%	1.0%	2.0%	9.8%	0.6%	1.8%	2.5%	0.8%	1.0%	2.1%	8.8%
Latvia	0.1%	0.5%	1.1%	0.5%	0.5%	0.5%	3.2%	0.1%	0.6%	0.8%	0.4%	0.4%	0.6%	2.9%
Ukraine	0.0%	0.0%	0.0%	0.1%	0.2%	0.6%	0.9%	0.0%	0.0%	0.0%	0.1%	0.1%	0.6%	0.8%
Norway	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%
Total	9.2%	18.2%	17.6%	7.2%	8.1%	39.7%	100.0%	10.3%	18.8%	15.6%	6.7%	7.0%	41.6%	100.0%

Capitalized annuities

The following results do not take into account the impact of changes in valuation of investments included in provision calculations.

Impact of the change in assumptions regarding the provision for the capitalized value of annuities in non-life insurance on the net financial result and equity	31 December 2022		31 December 2021	
	gross	net base	gross	net base
Technical rate – increased by 0.5 p.p.	509	474	457	425
Technical rate – decrease by 1.0 p.p.	(1,308)	(1,221)	(1,173)	(1,090)
Mortality at 110% of currently assumed rate	156	149	139	134
Mortality at 90% of currently assumed rate	(175)	(166)	(157)	(149)

8.5.2.2. Exposure to insurance risk – life insurance

The PZU Group has not disclosed information on the development of claims in life insurance, since uncertainty about the amount and timing of claims payments is typically resolved within one year.

Risk concentration is associated with the concentration of insurance contracts or sums insured. For traditional individual insurance products, where concentration risk is related to the possibility that an insurable event occurs or is related to the potential level of payouts arising from a single event, the risk is assessed on a case-by-case basis. The assessment includes medical risk and – in justified cases – also financial risk. Consequently, risk selection occurs (a person concluding an insurance agreement is evaluated) and the maximum acceptable risk level is defined.

In group insurance, concentration risk is mitigated by the sheer size of the contract portfolio. This significantly reduces the level of disturbances caused by the random nature of insurance history. Additionally, the collective form of a contract, under which all the persons insured have the same sum insured and coverage is an important risk-mitigating factor. Therefore, some risks within the contract portfolio are not concentrated.

In the case of group insurance contracts in which insurance cover may be adjusted at the level of individual group contracts, a simplified underwriting process is used. It is based on information about the industry in which the work establishment operates, assuming appropriate ratios of the insured to employees in the work establishment. The insurance premiums used in such cases and appropriate mark-ups result from statistical analyses conducted by PZU Life on incidence of claims at the level of defined homogeneous risk groups, including relative frequency of events compared to public statistical data.

It should be noted that for most contracts, the claim amount is strictly defined in the insurance contract. Therefore, compared to typical non-life insurance contract, concentration risk is reduced, since single events with high claims payments are relatively rare.

Annuity products in life insurance

Impact of the change in assumptions in annuity life insurance on the net financial result and equity	31 December 2022	31 December 2021
Technical rate – decreased by 1.0 p.p.	(17)	(18)
Mortality at 90% of currently assumed rate	(8)	(9)

Life insurance products excluding annuity products

Impact of the change in assumptions in life insurance, excluding provisions in annuity products, on the net financial result and equity	31 December 2022	31 December 2021
Technical rate – decreased by 1.0 p.p.	(2,516)	(2,512)
Mortality at 110% of currently assumed rate	(822)	(886)
Morbidity and accident rate at 110% of currently assumed rate	(130)	(194)

Effects of lapses in life insurance

Calculation of mathematical technical provisions for life insurance does not include the risk of lapses (resignations). The effects of hypothetical lapses 10% of all life insurance customers are presented below.

Item in financial statements	31 December 2022	31 December 2021
Movement in technical provisions	2,148	2,207
Claims and benefits paid	(772)	(859)
Movement in deferred acquisition expenses	(5)	(7)
Profit/loss before tax	1,371	1,341
Net financial result and equity	1,110	1,086

8.5.3. Market risk

Market risk means the risk of loss or of adverse change in the financial situation resulting, directly or indirectly, from fluctuations in the level and in the volatility of market prices of assets, credit spread, value of liabilities and financial instruments.

Market risk types in the PZU Group include:

- **equity risk** – the possibility of incurring loss as a result of changes in the values of assets, liabilities and financial instruments caused by changes in the level or in the volatility of market prices of equities;
- **unquoted equity risk** – the possibility of incurring loss as a result of changes in the valuation of unquoted shares;
- **property risk** – the possibility of incurring loss as a result of changes in the values of assets, liabilities and financial instruments caused by changes in the level or in the volatility of market prices of real estate;
- **commodity risk** – the possibility of incurring loss as a result of changes in the values of assets, liabilities and financial instruments caused by changes in the level or in the volatility of market prices of commodities;
- **inflation risk** – the possibility of incurring loss associated with the level of information, especially inflation of prices of goods and services as well as expectations as to the future inflation level, which affect the valuation of assets and liabilities;
- **liquidity risk** – the risk of being unable to realize investments and other assets without affecting their market prices in order to settle financial obligations when they fall due;
- **interest rate risk** – the possibility of incurring a loss as a result of changes in the value of financial instruments or other assets and a change in the present value of projected cash flows from liabilities, caused by changes in the term structure of market rates or in the volatility of risk-free market interest rates;
- **basis risk** – the possibility of incurring a loss as a result of changes in the value of financial instruments or assets and a change in the present value of projected cash flows from liabilities, caused by changes in the term structure of spreads between market interest rates and risk-free rates or in the volatility of such spreads, excluding credit spreads;
- **foreign exchange risk** – the possibility of incurring loss as a result of changes in the value of assets, liabilities and financial instruments, caused by changes in the level or in the volatility of currency exchange rates;
- **credit spread risk** – the possibility of incurring loss as a result of changes in the value of assets, liabilities and financial instruments, caused by changes in the level or in the volatility of credit spreads over the term structure of the interest rates on debt securities issued by the State Treasury;
- **concentration risk** – the possibility of incurring loss stemming either from lack of diversification in the asset portfolio or from large exposure to default risk by a single issuer of securities or a group of related issuers.

Concentration risk and credit spread risk are regarded as an integral part of market risk when measuring risk for the purposes of risk profile, risk tolerance, and market risk ratio reporting. The risk management process has, however, a different set of traits from the process of managing the other sub-categories of market risk and has been described in section 8.5.1.1 along with the process for managing counterparty insolvency risk.

The market risk in the PZU Group originates from three major sources:

- operations associated with asset and liability matching (ALM portfolio);
- operations associated with active allocation, i.e. designating the optimum medium-term asset structure (AA portfolios);

- banking operations in Pekao Alior Bank – generating material exposure to interest rate risk.

A number of documents approved by supervisory boards, management boards and dedicated committees govern investment activity in PZU Group companies.

Risk units take part in the risk identification process, measure, monitor and report on the risks. Market risk is measured using the Value at Risk (VaR) economic capital calculation model or standard formula in accordance with the rules defined by Solvency II Directive. In order to effectively manage market risk, risk limits are adopted in a form of a capital amount allocated to each market risk and limits for individual market risks.

In Pekao, the market risk management system forms the structural, organizational and methodological framework, which aims to maintain the balance sheet and off-balance sheet structure in line with the accepted strategic objectives. The market risk management process and the governing procedures include the separation into the banking and trading books.

In managing its trading book's market risk, Pekao strives to optimize the financial performance and ensure the highest possible quality of service of the bank's clients in respect to market-making, while remaining within the limits approved by the management board and the supervisory board.

When managing interest rate risk in its banking book, Pekao endeavors to secure the economic value of equity and to achieve its intended net interest income target within the accepted limits.

In Alior Bank, the exposure to market risk is restricted by the system of periodically updated limits introduced by the resolution of the supervisory board or the Capital, Asset and Liability Management Committee, covering all risk measures the level of which is monitored and reported by Alior Bank's organizational units that are independent of the business division. In Alior Bank, there are three types of limits that differ in respect to their functioning – basic, supplementary and stress-test limits. Market risk management focuses on limiting potential adverse changes in economic value of equity.

Exposure to market risk

Carrying amount	Note	31 December 2022				31 December 2021			
		Assets at Group's risk		Assets at client's risk	Total	Assets at Group's risk		Assets at client's risk	Total
			including banks' assets				including banks' assets		
Financial assets and cash exposed to interest rate risk		389,627	344,610	931	390,558	360,904	316,355	1,032	361,936
Fixed-income debt securities	37	107,587	75,050	860	108,447	95,855	60,477	965	96,820
Variable-income debt securities	37	24,580	22,076	44	24,624	24,825	22,798	43	24,868
Loan receivables from clients	35	212,693	212,693	-	212,693	215,008	215,008	-	215,008
Term deposits with credit institutions	37	3,047	2,562	21	3,068	1,364	1,031	20	1,384
Loans	37	4,269	-	-	4,269	3,586	-	-	3,586
Cash	40	15,954	15,231	6	15,960	9,443	8,684	4	9,447
Buy-sell-back transactions	37	7,071	2,572	-	7,071	4,117	1,651	-	4,117
Derivatives	36	14,426	14,426	-	14,426	6,706	6,706	-	6,706
Financial assets exposed to other price risk		5,041	2,172	4,084	9,125	3,896	2,339	5,241	9,137
Equity instruments	37	3,290	692	4,064	7,354	2,306	770	5,209	7,515
Derivatives	36	1,751	1,480	20	1,771	1,590	1,569	32	1,622
Total		394,668	346,782	5,015	399,683	364,800	318,694	6,273	371,073

The following table presents financial assets of banks and at client's risk, by the item in which they are classified in the consolidated financial statements:

Financial assets of banks and financial assets at client's risk	Note	31 December 2022		31 December 2021	
		Pekao and Alior Bank	Financial assets at client's risk	Pekao and Alior Bank	Financial assets at client's risk
Loan receivables from clients	35	212,693	-	215,008	-
Financial derivatives		15,906	20	8,275	32
Investment financial assets		102,952	4,989	86,727	6,237
Measured at amortized cost		74,402	21	53,432	20
Debt securities		69,268	-	50,750	-
Government securities		48,111	-	43,770	-
Domestic		42,654	-	43,770	-
Fixed rate		38,661	-	38,644	-
Floating rate		3,993	-	5,126	-
Foreign		5,457	-	-	-
Fixed rate		5,457	-	-	-
Other		21,157	-	6,980	-
Fixed rate		15,843	-	2,224	-
Floating rate		5,314	-	4,756	-
Buy-sell-back transactions		2,572	-	1,651	-
Term deposits with credit institutions		2,562	21	1,031	20
Measured at fair value through other comprehensive income		27,359	-	32,425	-
Equity instruments		443	-	513	-
Debt securities		26,916	-	31,912	-
Government securities		18,133	-	22,171	-
Domestic		18,075	-	22,171	-
Fixed rate		9,601	-	14,868	-
Floating rate		8,474	-	7,303	-
Foreign		58	-	-	-
Fixed rate		58	-	-	-
Other		8,783	-	9,740	-
Fixed rate		4,735	-	4,445	-
Floating rate		4,048	-	5,295	-
Measured at fair value through profit or loss		1,191	4,968	870	6,217
Equity instruments		239	311	249	377
Participation units and investment certificates		10	3,753	8	4,832
Debt securities		942	904	613	1,008
Government securities		743	860	403	965
Domestic		743	851	403	959
Fixed rate		650	846	291	956
Floating rate		93	5	112	3
Foreign		-	9	-	6
Fixed rate		-	9	-	6
Other		199	44	210	43
Fixed rate		45	5	4	3
Floating rate		154	39	206	40
Cash		15,231	6	8,684	4
Total financial assets of banks and financial assets at client's risk		346,782	5,015	318,694	6,273

In its investing activities, the PZU Group uses derivatives as a tool to mitigate risk (with or without hedge accounting) and to facilitate efficient management of the investment portfolio.

The PZU Group's exposure to derivatives is presented in section 36.

Exposure to debt securities issued by governments other than the Polish government

Carrying amount of debt securities issued by governments other than the Polish government	31 December 2022	31 December 2021
Germany	2,557	1
France	1,864	14
United States	1,226	13
Lithuania	717	845
Romania	209	227
Latvia	180	155
Indonesia	176	132
Spain	142	17
Hungary	128	134
Italy	114	118
Bulgaria	78	87
Mexico	78	88
Ukraine	78	163
Columbia	76	76
Croatia	75	154
Brazil	66	70
Panama	66	76
Peru	64	74
Other	625 ¹⁾	754 ²⁾
Total	8,519	3,198

¹⁾ The line item "Other" includes bonds issued by 54 countries with respect to which the balance sheet exposure does not exceed the equivalent of PLN 50 million.

²⁾ The line item "Other" includes bonds issued by 53 countries.

Exposure to debt securities issued by corporations and local government units

Carrying amount of debt securities issued by corporations, local government units and National Bank of Poland	31 December 2022	31 December 2021
K. Financial and insurance activities, of which:	22,256	8,375
Foreign banks	5,864	4,777
National Bank of Poland	14,594	1,870
Companies from the WIG-Banks Index	562	553
O. Public administration and defense, compulsory social security, of which:	5,313	5,354
Domestic local governments	5,309	5,345
D. Electricity, gas, steam, hot water and air conditioning production and supply, of which:	1,914	2,329
Companies from the WIG-Energy Index	1,308	1,614
C. Manufacturing, of which:	1,676	1,818
Production and processing of crude oil refining products (including WIG-Fuels)	707	766
H. Transportation and storage	679	801
N. Administrative and support service activities	620	1,006
E. Water supply; sewerage, waste management and remediation activities	584	413
F. Construction	373	305
J. Information and communication	365	377
I. R. Accommodation and food service activities (including: WIG - hotels and restaurants), and arts, entertainment and recreation activities	298	335
B. Mining and quarrying	192	185
M. Professional, scientific and technical activity	187	196
L. Real estate activities	185	285
G. Wholesale and retail trade services; repair services of motor vehicles and motorcycles	24	47
Total	34,666	21,826

8.5.3.1. Interest rate risk

The following table presents the sensitivity test of the portfolio of financial instruments for which the PZU Group bears the risk (except for loan receivables from clients and deposit liabilities).

Change in portfolio value caused by a +/-100 bp shift in the yield curve, by currency of the instrument	31 December 2022		31 December 2021	
	decrease	increase	decrease	increase
Polish zloty	685	(663)	1,180	(1,143)
Euro	12	(8)	60	(56)
US dollar	49	(37)	141	(122)
other	1	(1)	(8)	8
Total	747	(709)	1,373	(1,313)

The above sensitivity tests do not include the effects of changes in interest rates for technical provisions and liabilities under investment contracts. An analysis of effect of a change in technical rate on measurement of insurance contracts is presented in sections 8.5.2.1 and 8.5.2.2.

The table below presents the contractual level of sensitivity of net interest income (NII) to a 100 bp change in interest rates and sensitivity of the economic value of equity (EVE) of PZU Group's banks to a 200 bps change in interest rates. The measure (NII) is used for managing interest rate risk in order to reduce variations in net interest income. EVE is defined as the present value of future cash flows that will be generated by the entity's assets, less the present value of the future cash flows necessary to pay the entity's liabilities. Both analyses assume an immediate change in market rates. The interest rate on bank products changes according to the contractual provisions, whereas in the case of contractual NII sensitivity, for deposits from retail customers, the declines in interest rates are limited to the zero interest rate level, but not down to negative figures, while for EVE sensitivity the zero-based limitation of interest rate decreases applies to all liabilities. Also, in the case of EVE sensitivity for PLN-denominated current deposits, a model that ensures realistic revaluation is used.

Entity	Measure	31 December 2022		31 December 2021	
		decrease	increase	decrease	increase
Pekao Group	NII	-3.85%	0.16%	-7.51%	-1.15%
	EVE	3.10%	-5.75%	3.36%	-6.31%
Alior Bank Group	NII	-4.68%	0.65%	-7.52%	0.89%
	EVE	1.56%	-4.74%	0.50%	-2.49%

An increase in interest rates and turmoil in financial markets brought about by the Russia-Ukraine war resulted in higher use of market risk limits in banks. However, the level remains within the limits assumed by banks.

Changes in financial markets also pertain to PZU and PZU Życie portfolios. Nonetheless, most portfolios are kept in till initial maturity in accounting terms and therefore these changes do not affect their value and profitability. However, changes in macroeconomic conditions which took place in 2022 affected capital requirements levels.

8.5.3.2. Currency risk

Exposure to FX risk

Assets by currency	31 December 2022					31 December 2021				
	PLN	EUR	USD	Other	Total	PLN	EUR	USD	Other	Total
Loan receivables from clients	174,067	35,520	1,570	1,536 ¹⁾	212,693	180,434	29,637	1,254	3,683 ²⁾	215,008
Financial derivatives	14,503	1,450	243	1	16,197	7,293	918	116	1	8,328
Investment financial assets	130,875	13,411	9,612	935	154,833	118,622	7,891	10,547	1,230	138,290
Measured at amortized cost	93,592	7,686	4,463	313	106,054	79,040	1,946	1,829	455	83,270
Debt securities	80,542	6,707	4,326	71	91,646	71,142	1,122	1,774	145	74,183
Government securities	59,486	5,254	3,820	71	68,631	63,178	262	1,774	145	65,359
Other	21,056	1,453	506	-	23,015	7,964	860	-	-	8,824
Buy-sell-back transactions	6,991	80	-	-	7,071	4,117	-	-	-	4,117
Term deposits with credit institutions	2,511	287	28	242	3,068	704	332	38	310	1,384
Loans	3,548	612	109	-	4,269	3,077	492	17	-	3,586
Measured at fair value through other comprehensive income	31,311	4,780	3,965	548	40,604	32,654	4,897	7,553	703	45,807
Equity instruments	1,609	39	-	-	1,648	719	49	-	-	768
Debt securities	29,702	4,741	3,965	548	38,956	31,935	4,848	7,553	703	45,039
Government securities	22,203	3,331	2,028	-	27,562	23,599	3,348	5,373	-	32,320
Other	7,499	1,410	1,937	548	11,394	8,336	1,500	2,180	703	12,719
Measured at fair value through profit or loss	5,972	945	1,184	74	8,175	6,928	1,048	1,165	72	9,213
Equity instruments	443	20	322	45	830	532	17	349	33	931
Participation units and investment certificates	3,231	882	739	24	4,876	4,200	968	620	28	5,816
Debt securities	2,298	43	123	5	2,469	2,196	63	196	11	2,466
Government securities	2,070	28	109	5	2,212	1,958	47	167	11	2,183
Other	228	15	14	-	257	238	16	29	-	283
Receivables	10,621	1,378	615	28	12,642	7,836	1,167	341	74	9,418
Cash and cash equivalents	10,077	3,338	1,472	1,073 ³⁾	15,960	5,063	2,310	1,041	1,033 ⁴⁾	9,447
Total assets	340,143	55,097	13,512	3,573	412,325	319,248	41,923	13,299	6,021	380,491

¹⁾ Of which PLN 413 million in Swiss francs, PLN 545 million in British pounds, PLN 244 million in Romanian lei and PLN 243 million in Norwegian kroner.

²⁾ Of which PLN 2,332 million in Swiss francs, PLN 628 million in British pounds and PLN 372 million in Romanian lei.

³⁾ Of which PLN 306 million in Swiss francs and PLN 275 million in British pounds.

⁴⁾ Of which PLN 377 million in British pounds, PLN 228 million in Swiss francs, PLN 80 million in Norwegian kroner and PLN 69 million in Swedish kroner.

Liabilities by currency	31 December 2022					31 December 2021				
	PLN	EUR	USD	Other	Total	PLN	EUR	USD	Other	Total
Subordinated liabilities	6,184	-	-	-	6,184	6,227	47	-	-	6,274
Liabilities on the issue of own debt securities	10,764	319	7	-	11,090	5,143	791	6	-	5,940
Liabilities to banks	4,390	3,095	138	97 ¹⁾	7,720	4,624	2,652	77	117 ²⁾	7,470
Liabilities to clients under deposits	225,346	32,050	16,254	4,408 ³⁾	278,058	222,397	26,529	12,565	3,664 ⁴⁾	265,155
Financial derivatives	19,765	997	188	6	20,956	10,810	896	168	6	11,880
Other liabilities	13,374	2,876	867	61	17,178	10,702	1,950	400	151	13,203
Total liabilities by currency	279,823	39,337	17,454	4,572	341,186	259,903	32,865	13,216	3,938	309,922

¹⁾ Of which PLN 93 million in Swiss francs.

²⁾ Of which PLN 107 million in Swiss francs.

³⁾ Of which PLN 2,044 million in British pounds, PLN 1,250 million in Swiss francs, PLN 308 million in Norwegian kroner, PLN 226 million in Canadian dollars, PLN 189 million in Swedish kroner and PLN 76 million in Australian dollars.

⁴⁾ Of which PLN 1,826 million in British pounds, PLN 854 million in Swiss francs, PLN 254 million in Norwegian kroner, PLN 202 million in Canadian dollars, PLN 172 million in Swedish kroner and PLN 61 million in Australian dollars.

To manage its FX risk, the PZU Group uses also derivatives which allows it to take a selected market exposure in a more efficient manner than by using cash instruments.

The following table presents the sensitivity test of the portfolio of PZU Group's financial instruments (except for loan receivables from clients and deposit liabilities) in respect to financial instruments for which the PZU Group bears the risk.

Financial assets exposed to exchange risk include investment (deposit) financial assets of the PZU Group and derivative financial assets denominated in foreign currencies.

Change in portfolio value caused by a +/-20% change of the exchange rate	31 December 2022		31 December 2021	
	decrease	increase	decrease	increase
EUR	(792)	799	(764)	779
USD	(21)	14	(40)	60
GBP	2	(2)	1	-
Other	(41)	50	(71)	73
Total	(852)	861	(874)	912

8.5.3.3. Equity risk

Level of risk exposure

The value of the portfolio of equity financial instruments is presented in section 37.2.

Sensitivity analysis

The table below presents the sensitivity test of PZU Group's portfolio of quoted equity instruments for which the PZU Group bears the risk.

Impact of a change in the measurement of quoted equity instruments on equity	31 December 2022	31 December 2021
increase in measurement of quoted equity instruments by 20%	288	136
decrease in measurement of quoted equity instruments by 20%	(288)	(136)

8.5.4. Liquidity risk

Financial liquidity risk means the possibility of losing the capacity to settle, on an ongoing basis, the PZU Group's liabilities to its clients or business partners. The aim of the liquidity risk management system is to maintain the capacity of fulfilling the entity's liabilities on an ongoing basis. Liquidity risk is managed separately for the insurance part and the bancassurance part.

The risk identification involves analysis of the possibility of occurrence of unfavorable events, in particular:

- shortage of liquid cash to satisfy current needs;
- lack of liquidity of financial instruments held;
- the structural mismatch between the maturity of assets and liabilities.

Risk assessment and measurement are carried out by estimating the shortage of cash to pay for liabilities. The risk estimate and measurement is carried out from the following perspectives:

- liquidity gaps (static, long-term financial liquidity risk) – by monitoring a mismatch of net cash flows resulting from insurance contracts executed until the balance sheet date and inflows from assets to cover insurance liabilities in each period, based on a projection of cash flows prepared for a given date;
- potential shortage of financial funds (medium-term financial liquidity risk) – through analysis of historical and expected cash flows from the operating activity;

- stress tests (medium-term financial liquidity risk) – by estimating the possibility of selling the portfolio of financial investments in a short period to satisfy liabilities arising from the occurrence of insurable events, including extraordinary ones;
- current statements of estimates (short-term financial liquidity risk) – by monitoring demand for cash reported by business units of a given insurance undertaking in the PZU Group by the date defined in regulations which are in force in that entity.

The banks in the PZU Group employ the liquidity risk management metrics stemming from sector regulations, including Recommendation P issued by the KNF.

To manage the liquidity of the banks in the PZU Group, liquidity ratios are used for different periods ranging from 7 days, to a month, to 12 months and to above 12 months.

Within management of liquidity risk, banks in the PZU Group also perform analyses of the maturity profile over a longer term, depending to a large extent on the adopted assumptions about development of future cash flows connected with items of assets and equity and liabilities. The assumptions take into consideration:

- stability of equity and liabilities with indefinite maturities (e.g. current accounts, cancellations and renewals of deposits, level of their concentration);
- possibility of shortening the maturity period for specific items of assets (e.g. mortgage loans with an early repayment option);
- possibility of selling items of assets (liquidity portfolio).

Monitoring and controlling financial liquidity risk involve analyzing the utilization of the defined limits.

Reporting involves communicating the level of financial liquidity to various decision-making levels. The frequency of each report and the scope of information provided therein are tailored to the information needs at each decision-making level.

The following measures aim to reduce financial liquidity risk:

- maintaining cash in a separate liquidity portfolio at a level consistent with the limits for the portfolio value;
- maintaining sufficient cash in a foreign currency in portfolios of investments earmarked for satisfying insurance liabilities denominated in the given foreign currency;
- provisions of the Agreement on managing portfolios of financial instruments entered into between TFI PZU and PZU regarding limitation of the time for withdrawing cash from the portfolios managed by TFI PZU to at most 3 days after a request for cash is filed;
- keeping open credit facilities in banks and/or the possibility of performing sell-buy-back transactions on treasury securities, including those held until maturity;
- centralization of management of portfolios/funds by TFI PZU;
- limits of liquidity ratios in the banks belonging to the PZU Group.

In the second half of 2022, PZU Group banks recorded improved liquidity ratios. Increase in liquidity measures largely resulted from higher volume of term deposits while simultaneously decreasing dynamics of loans granted, and improving assessment of derivative and debt instruments.

In the second half of 2022, liquidity ratios of both banks stabilized, and remain above internal and regulatory minima.

The impact of the current environment pandemic on the liquidity risk of the PZU Group's insurance segment in 2022 should be classified as low. This liquidity was maintained at a required level, and there were no grounds to take extraordinary management actions in terms of liquidity risk. As part of routine management actions regarding liquidity risk, the PZU Group constantly monitored the level of available liquid funds and the current utilization of liquidity limits.

Risk exposure

Carrying amount of debt instruments, by maturity	31 December 2022							31 December 2021						
	up to 1 year	1-2 years	2-3 years	3-4 years	4-5 years	Over 5 years	Total	up to 1 year	1-2 years	2-3 years	3-4 years	4-5 years	Over 5 years	Total
Loan receivables from clients	59,360	24,681	18,591	15,672	12,756	81,633	212,693	57,099	23,423	22,287	15,964	14,715	81,520	215,008
Investment (deposit) debt instruments	45,154	22,794	15,139	15,149	12,602	36,641	147,479	27,775	12,735	19,666	14,508	14,113	41,978	130,775
Measured at amortized cost	36,872	14,623	11,010	6,602	9,254	27,693	106,054	17,075	7,471	12,266	10,264	6,055	30,139	83,270
Debt securities	26,814	13,331	10,291	5,395	8,959	26,856	91,646	11,702	7,382	10,707	9,623	4,999	29,770	74,183
Government securities	12,948	11,881	9,491	3,608	8,082	22,621	68,631	10,954	6,646	9,880	8,863	3,257	25,759	65,359
Other	13,866	1,450	800	1,787	877	4,235	23,015	748	736	827	760	1,742	4,011	8,824
Buy-sell-back transactions	7,071	-	-	-	-	-	7,071	4,117	-	-	-	-	-	4,117
Term deposits with credit institutions	2,981	36	18	14	8	11	3,068	1,253	78	32	17	4	-	1,384
Loans	6	1,256	701	1,193	287	826	4,269	3	11	1,527	624	1,052	369	3,586
Measured at fair value through other comprehensive income	7,907	7,581	3,858	8,212	3,084	8,314	38,956	10,304	4,997	6,948	3,886	7,775	11,129	45,039
Government securities	3,521	5,783	2,711	6,896	2,428	6,223	27,562	6,915	3,378	5,061	2,715	6,333	7,918	32,320
Other	4,386	1,798	1,147	1,316	656	2,091	11,394	3,389	1,619	1,887	1,171	1,442	3,211	12,719
Measured at fair value through profit or loss	375	590	271	335	264	634	2,469	396	267	452	358	283	710	2,466
Government securities	251	509	252	317	259	624	2,212	257	255	375	344	266	686	2,183
Other	124	81	19	18	5	10	257	139	12	77	14	17	24	283
Total	104,514	47,475	33,730	30,821	25,358	118,274	360,172	84,874	36,158	41,953	30,472	28,828	123,498	345,783

The following table presents future undiscounted cash flow from assets and liabilities.

Liquidity risk	31 December 2022								31 December 2021							
	Up to 1 year	1-2 years	2-3 years	3-4 years	4-5 years	5-10 years	Over 10 years	Total	Up to 1 year	1-2 years	2-3 years	3-4 years	4-5 years	5-10 years	Over 10 years	Total
Assets	157,463	55,303	37,311	33,425	25,005	68,437	71,898	448,842	133,769	41,893	38,749	29,351	24,195	66,431	63,082	397,470
Cash and cash equivalents	10,394	497	345	273	239	767	3,445	15,960	6,437	220	156	123	104	363	2,044	9,447
Receivables	5,592	4,059	258	218	324	2,191	-	12,642	4,362	2,446	113	286	289	1,698	220	9,414
Loan receivables from clients	61,009	36,378	25,851	20,316	15,829	41,894	51,225	252,502	54,652	29,503	28,480	20,340	14,182	41,260	45,621	234,038
Debt securities	69,804	12,819	9,894	11,369	8,244	22,920	16,935	151,985	62,441	9,304	8,335	7,846	8,591	22,784	15,142	134,443
Loans	505	1,548	963	1,249	369	664	293	5,591	214	242	1,519	717	1,029	326	55	4,102
Buy-sell-back transactions	7,075	-	-	-	-	-	-	7,075	4,117	-	-	-	-	-	-	4,117
Term deposits with credit institutions	3,084	2	-	-	-	1	-	3,087	1,546	178	146	39	-	-	-	1,909
Liabilities	(160,871)	(21,963)	(15,368)	(10,364)	(12,695)	(29,321)	(114,697)	(365,279)	(150,158)	(16,389)	(11,552)	(9,319)	(6,853)	(26,640)	(118,559)	(339,470)
Technical provisions	(9,327)	(3,729)	(2,608)	(1,941)	(1,489)	(5,799)	(24,343)	(49,236)	(9,568)	(3,239)	(2,446)	(1,858)	(1,496)	(5,411)	(22,803)	(46,821)
Lease liabilities	(184)	(163)	(201)	(159)	(131)	(427)	(654)	(1,919)	(199)	(136)	(91)	(145)	(84)	(207)	(658)	(1,520)
Other liabilities	(151,360)	(18,071)	(12,559)	(8,264)	(11,075)	(23,095)	(89,700)	(314,124)	(140,391)	(13,014)	(9,015)	(7,316)	(5,273)	(21,022)	(95,098)	(291,129)
Gap	(3,408)	33,340	21,943	23,061	12,310	39,116	(42,799)	83,563	(16,389)	25,504	27,197	20,032	17,342	39,791	(55,477)	58,000

The following table presents future undiscounted cash flows from banks' off-balance sheet liabilities (by contractual terms).

Off-balance sheet liabilities granted	31 December 2022						31 December 2021					
	up to 1 month	1-3 months	3 months to 1 year	1-5 years	over 5 years	Total	up to 1 month	1-3 months	3 months to 1 year	1-5 years	over 5 years	Total
Financing	66,767	-	-	-	-	66,767	50,499	-	-	-	-	50,499
Guarantees	12,727	-	-	-	-	12,727	14,269	-	-	-	-	14,269
Total	79,494	-	-	-	-	79,494	64,768	-	-	-	-	64,768

8.5.5. Operational risk

Operational risk is the possibility of suffering loss resulting from improper or erroneous internal processes, human activities, system failures or external events.

Operational risk management has the purpose of optimizing the level of operational risk and operating efficiency in the PZU Group's operations, leading to a reduction of losses and costs arising from such risks and ensuring adequate and effective control mechanisms. Information on operational risk levels is regularly reported to relevant internal authorities.

Operational risk is identified in particular by:

- accumulation and analysis of information on operational risk incidents and the reasons for their occurrence;
- self-assessment of operational risk;
- scenario analysis.

Operational risk is assessed and measured by:

- calculating the effects of the occurrence of operational risk incidents;
- estimating the effects of possible occurrence of operational risk incidents.

Monitoring and control of operational risk is performed mainly through an established system of operational risk indicators and limits enabling assessment of changes in the level of operational risk over time and assessment of factors that affect the level of this risk in the business.

Reporting involves communicating the level of operational risk, the effects of monitoring and control to various decision-making levels. The frequency of each report and the scope of information provided therein are tailored to the information needs at each decision-making level.

Management actions involving reactions to any identified and assessed operational risks involve, in particular:

- taking actions aimed at minimizing risks, for instance by strengthening the internal control system;
- risk transfer – in particular, by entering into insurance agreements;
- risk avoidance by refraining from undertaking or withdrawing from a particular type of business in cases where too high a level of operational risk is ascertained and where the costs involved in risk mitigation are unreasonable;
- risk acceptance – approval of consequences of a possible realization of operational risk unless they threaten to exceed the operational risk tolerance level.

Business continuity plans were implemented by PZU. Actions securing correct operation of the processes included in the Plan in the event of emergency have been tested.

On 28 January 2022, the Crisis Management Team in PZU and PZU Życie, in the face of an attack by the armed forces of the Russian Federation on Ukraine, declared a crisis situation, under which ongoing monitoring of the current political and market situation is implemented and adequate measures directed in particular towards:

- safety of employees;
- business continuity of the companies and security of financial assets of the PZU Group;
- additional safety measures in terms of cybersecurity and physical safety.

PZU introduced a comprehensive care program addressed to employees of PZU Ukraine and their families evacuated to Poland. It provides, among others, accommodation, food, financial support, medical and legal aid, and professional activation plans.

The task unit of the Crisis Management Team continuously monitors the situation of Ukrainian companies, also in terms of reaching the assumptions of the "Crisis Situation Management Plan", as prepared by Ukrainian companies.

Many charity initiatives addressed to Ukraine and its nationals are underway, taken individually or in cooperation with state administrative bodies and PZU Group.

Additional cybersafety measures were introduced to mitigate risk with increasing probability of materialization. Anomalies in terms of cyber threats, extending to subsidiaries, are under continuous 24/7 monitoring. Due to the nationwide implementation of CRP Alert Level 3 (CHARLIE-CRP) and Alert Level 2 (BRAVO), a heightened state of readiness of the physical and cyber security areas has been maintained continuously since February 2022.

The Crisis Management Team also remains on standby to address the epidemic emergency.

8.5.6. Compliance risk

Compliance risk is the risk of legal sanctions, financial losses or loss of reputation or credibility arising from a failure of PZU Group companies, their employees or entities acting on their behalf to comply with the law, internal regulations or standards of conduct, including ethical standards.

The demarcation of responsibilities with respect to systemic and ongoing compliance risk management is based on internal regulations.

Systemic management entails in particular: developing solutions for implementing compliance risk management principles, monitoring the compliance risk management process and promoting and monitoring compliance with internal regulations and standards of conduct in respect to compliance.

Ongoing compliance risk management entails: identifying, assessing and measuring and adaptation to regulatory requirements.

8.5.7. Model risk

Model risk, classified by the PZU Group as significant, is defined as the risk of incurring financial losses, incorrectly estimating data reported to the regulatory authority, taking incorrect decision or losing reputation as a result of errors in the development, implementation or application of models. The formal identification and assessment process for this risk was implemented in PZU and PZU Życie to ensure high-quality practices for model risk assessment. The model risk management process involves:

- risk identification – taking place through regular identification of the models used in the areas covered by the process and assessment of their materiality;
- risk measurement - which is based on the results of independent model validations and monitoring;
- risk monitoring – involving ongoing analysis of deviations from the adopted points of reference regarding the model risk (including verification of how recommendations are implemented, verification that the level of model risk is acceptable from the point of view of the Model Risk Management Policy);
- risk reporting – involving communicating the process results on the appropriate management level, in particular results of risk monitoring, validation and measurement;
- management actions – aiming to mitigate the model risk level (active – e.g. recommendations resulting from completed validations – and passive – e.g. developing model and model risk management standards).

In the entities from the banking sector, given the high significance of model risk, the management of this risk has already been implemented in the course of adaptation to the requirements of Recommendation W issued by the KNF. Both banks have defined standards for the model risk management process, including the rules for developing models and evaluating the quality of their operation and have ensured appropriate corporate governance solutions.

9. Equity management

On 25 March 2021 the PZU Supervisory Board adopted a resolution to approve the PZU Group’s Capital and Dividend Policy for 2021-2024 (“Policy”).

In accordance with the Policy, the PZU Group endeavors to do the following:

- manage capital effectively by optimizing the usage of capital from the PZU Group’s perspective;
- maximize the rate of return on equity for the parent company’s shareholders, in particular by maintaining the level of security and retaining capital resources for strategic growth objectives through organic growth and acquisitions;
- ensure sufficient financial means to cover the PZU Group’s liabilities to its clients.

The capital management policy rests on the following principles:

- manage the PZU Group’s capital (including excess capital) at the level of PZU;

- sustain target solvency ratios at the level of 200% for the PZU Group, PZU SA and PZU Życie SA (according to Solvency II);
- maintain the PZU Group's financial leverage ratio at a level no higher than 25%;
- ensure funds for growth and acquisitions;
- maintain the financial conglomerate's surplus own funds above the pertinent requirements for solvency;
- PZU will not issue any new shares for the duration of this Policy.

It is assumed that certain temporary deviations in the actual solvency ratio above or below the target level may occasionally occur.

The PZU and PZU Group's dividend policy rests on the following principles:

- The PZU Group endeavors to manage capital effectively and maximize the rate of return on equity for PZU's shareholders, in particular by maintaining the level of security and retaining capital resources for strategic growth objectives through acquisitions;
- the dividend amount proposed by the PZU Management Board paid for the financial year is determined on the basis of the PZU Group's consolidated financial result attributable to equity holders of the parent company, where:
 - no more than 20% will be earmarked as retained earnings (supplementary capital) for goals associated with organic growth and innovations as well as execution of growth initiatives;
 - no less than 50% is subject to payment as an annual dividend;
 - the remaining part will be paid in the form of annual dividend or will increase retained earnings (supplementary capital) if significant expenditures are incurred in connection with execution of the PZU Group Strategy, including in particular, mergers and acquisitions;

subject to the items below:

- according to the PZU Management Board's plans and risk and solvency self-assessment of the parent company, the own funds of the parent company and the PZU Group following the declaration of payment or payment of a dividend will remain at a level that will ensure fulfillment of the conditions specified in the capital policy;
- when determining the dividend the regulatory authority's recommendations concerning dividends will be taken into consideration.

External capital requirements

According to the Insurance Activity Act, the calculation of the capital requirement is based on market, actuarial (insurance), counterparty insolvency, catastrophic and operational risks. Assets, liabilities and as a consequence own funds covering the capital requirement are measured at fair value. The capital requirement is calculated in accordance with the standard formula at the level of the entire PZU Group.

Pursuant to Article 412 sec. 1 of the Insurance Activity Act, the PZU Group is obligated to prepare and disclose an annual solvency and financial condition report at the group level drafted in accordance with the principles of Solvency II. The 2021 report published on 18 May 2022 is available online at <https://www.pzu.pl/relacje-inwestorskie/raporty?queries%5Byear%5D=2021>. For the 2022 report, the publication deadline is no later than 20 weeks after the year end, that is until 20 May 2023 Pursuant to Article 290 sec. 1 of the Insurance Activity Act, a solvency and financial condition report of an insurance undertaking is audited by an audit firm.

Irrespective of the foregoing, some PZU Group companies are required to comply with their own capital requirements imposed by the relevant legal regulations.

The PZU Group's solvency ratio as at 31 December 2021, published in the PZU Group's 2021 solvency and financial condition report, was 221%. As at the date of signing the consolidated financial statements, the calculation of the solvency ratio as at 31 December 2022 has not yet been available.

The maintained levels of solvency ratio comply with those assumed in the capital policy of the PZU Group.

10. Fair value

10.1 Description of valuation techniques

10.1.1. Debt securities and loans

Fair values of debt securities are determined on the basis of quotations publicly available on an active market or valuations published by an authorized information service, and if there are no such quotations – using valuation models containing references to published price quotations of the underlying financial instruments, interest rates and stock exchange indices.

The PZU Group conducts an internal review of the valuations published by the authorized information service comparing them to the valuations available from other sources based on data which can be observed on the market.

The fair value of loans and debt securities for which an active market does not exist is measured using the discounted cash flow method. For debt instruments based on a variable interest rate, the reference curve reflecting the level of risk-free rates for the discounting of future flows is developed on the basis of an appropriate swap curve for the respective currency. However, for instruments based on a fixed interest rate – based on the quotes of treasury bonds in the given currency. For unlisted loans and bonds, in addition to the individual spread quantifying the specific risk of a given debt instrument, a market sector spread published in news services is added to reflect the pricing of the risk for the relevant sector for the issuer's business sector and its rating.

10.1.2. Equity-based financial assets

Fair values of equity-based financial assets are determined on the basis of quotations publicly available on an active market or, if they are unavailable, based on the present value of future forecasted profit or loss of companies or measurement models based on available market data.

10.1.3. Participation units and investment certificates of mutual funds

Fair values of participation units and investment certificates of mutual funds are measured using the value of the participation units and investment certificates published by the mutual fund management companies. Such valuation reflects the PZU Group's share in net assets of these funds.

10.1.4. Derivatives

For derivatives quoted on an active market, the fair value is considered to be the closing price as at the balance sheet date.

The fair value of derivatives not quoted on an active market, including forward contracts and interest rate swaps (IRSs) is measured using the discounted future cash flow method. Rates from OIS (overnight indexed swaps) curves taking into account the currency in which the margin for the instrument is denominated are used to discount cash flows.

The fair value of options is measured using the Black-Scholes model (plain vanilla options) or as the expected value of the option payoff function discounted as at the valuation date (Asian or basket options). The expected value of the payoff function is calculated using the Monte Carlo modeling method.

10.1.5. Loan receivables from clients

In order to determine a change in the fair value of loan receivables from clients (excluding current account overdraft), the margins earned on newly granted loans (in the month preceding the date as at which the consolidated financial statements are prepared) are compared with the margins in the whole loan portfolio. If the margins earned on newly granted loans are higher than the margins in the existing portfolio the fair value of the loan portfolio is lower than its carrying amount.

Loan receivables from clients are classified in full to level III of the fair value hierarchy due to the use of a valuation model with significant non-observable input data, i.e. current margins generated on newly granted loans.

10.1.6. Properties measured at fair value

Depending on the nature of the real property, its fair value is measured using the comparative method, the income method or the residual method.

The comparative method is used for measuring free land for development and certain smaller and less valuable buildings (such as residential units, garages, etc.). The comparative method assumes the determination of the fair value by reference to observable market prices, taking into account weighting coefficients. Weighting coefficients include, for instance, factors such as the passage of time and the trend of changes in market prices, the location, exposure, intended use in the zoning plan, accessibility for transportation purposes and access roads, surface, neighborhood (including the proximity to attractive objects), investment opportunities, physical conditions, form of exercising control, etc.

The income method assumes estimation of the fair value of the real property based on the discounted value of cash flows. The calculation takes into account such variables as the capitalization rate, the level of rents, the level of operating expenses, the provision for vacancy, losses resulting from rent free periods, rent arrears, etc. The values of the variables described above vary depending on the nature and the intended use of the measured real property (office space, retail space, logistics and warehousing space), its modernity and location (access roads, distance from an urban center, accessibility, exposure, etc.) as well as parameters specific to the relevant local market (such as capitalization rates, the level of rents, operating expenses, etc.).

The residual method is used to measure the market value if the real property is to be subjected to construction works. The fair value of such a real property is calculated as the difference in the value of the property after the construction works and the average value of the cost of these works, taking into account any gains earned in the market on similar properties.

Properties measured at fair value are appraised by licensed appraisers. The acceptance of each such measurement is additionally preceded by a review conducted by PZU Group companies' employees in order to eliminate any potential errors or inconsistencies. Any emerging doubts are clarified on an ongoing basis.

Investment property is measured in accordance with the following rules:

- real properties held by mutual funds controlled by PZU – measured every 6 months – on days ending each financial half-year and financial year;
- investment properties held by PZU Group companies – the most valuable items are measured in the event of ascertainment of a possible significant change in the value (usually on an annual basis). Regardless of the value, each investment property is measured not less frequently than once every 5 years;
- real properties held for sale – measured before the commencement of their active exposure to the market in accordance with the requirements of IFRS 5.

10.1.7. Liabilities on the issue of own debt securities and subordinated liabilities

The fair value of liabilities on the issue of own debt securities, including subordinated liabilities, is calculated as the present value of expected payments based on the current interest rate curves and the individual credit spread for the given issue. The individual spread is initially calibrated to the issue price and periodically recalibrated when transaction data is available.

10.1.8. Liabilities under deposits

Due to the fact that deposits are accepted under current operations on a daily basis, hence their terms are similar to the current market terms for identical transactions, and the time to maturity for such loans is short, it is deemed that for liabilities to clients with maturities up to 1 year the fair value does not significantly deviate from the carrying amount. For deposits over 1 year, fair value is calculated as the amount of future expected cash flows discounted as at the respective balance sheet date using the risk-free market rate plus a margin.

10.1.9. Other liabilities

10.1.9.1. Liabilities under investment contracts for the client's account and risk

Liabilities under investment contracts for the client's account and risk are measured at the fair value of assets covering the liabilities of the unit-linked fund associated with the relevant investment contract.

10.1.9.2. Liabilities to members of consolidated mutual funds

Liabilities to members in the consolidated mutual funds are measured at the fair value of assets of the relevant mutual fund (according to the share in the mutual fund's net assets).

10.1.9.3. Liabilities on borrowed securities

Liabilities on securities borrowed to make a short sale are measured at the fair value of borrowed securities.

10.2 Fair value hierarchy

On the basis of the input data for fair value measurement, the individual assets and liabilities for which fair value has been presented have been classified to the following levels:

- level I – assets and liabilities measured based on quoted prices (unadjusted) from active markets for identical assets and liabilities. This level includes:
 - liquid quoted debt securities;
 - shares and investment certificates quoted on exchanges;
 - derivatives quoted on exchanges;
 - liabilities on borrowed securities quoted on exchanges (short sale).
- level II – assets and liabilities whose measurement is based on input data other than quoted prices included within level I, which can be observed on the market, either directly (as prices) or indirectly (derived from prices). This level includes:
 - quoted debt securities carried on the basis of the valuations published by an authorized information service;
 - derivatives – among others FX Swap, FX Forward, IRS, CIRS, FRA;
 - participation units in mutual fund;
 - investment properties or properties held for sale measured using the comparative method, for which there is a sufficient number of transactions of similar properties in the analyzed market, including free land for development and certain smaller and less valuable buildings (such as residential units, garages, etc.);
 - liabilities to members of consolidated mutual funds;
 - investment contracts for the client's account and risk.
- level III – assets measured based on input data unobserved on the existing markets (unobservable input data). This level includes:
 - unquoted debt securities and non-liquid quoted debt securities (including non-treasury debt securities issued by other financial entities, local government and non-financial entities), measured using models based on discounted cash flows;
 - investment properties or properties held for sale measured using the income method or the residual method or the comparative method (if there is no adequate number of transactions of similar properties);
 - loan receivables from clients and liabilities to clients under deposits;
 - options embedded in certificates of deposit issued by PZU Group companies and options concluded in the interbank market to hedge embedded option positions.

In a situation in which the measurement of an asset or liability is based on input data classified in different levels of the fair value hierarchy, the measured asset is assigned to the lowest level from which the input data are taken, provided that they have a significant impact on the overall measurement.

The value of the measurement of components of assets or liabilities qualified in level III is affected to significant extent by unobservable input data.

Measured assets	Unobservable data	Description	Impact on measurement
Loan receivables from clients	Liquidity margin and current margin from the sale of the product group	Fair values are estimated using valuation techniques, with an assumption that when the loan is granted, the fair value is equal to the carrying amount. The fair value of loans without recognized impairment is equal to the sum of future expected cash flows discounted at the balance sheet date less expected credit loss. The cash flow discounting rate is the appropriate risk-free market rate plus the liquidity margin and current sales margin for the loan's product group. The margin is determined by product group and by maturity. For the purpose of estimating the fair value of foreign currency loans, the liquidity margin for PLN loans is used, adjusted by quotations of FX swap and basis-swap transactions. The fair value of loans with recognized impairment is equal to the sum of future expected salvage discounted using the effective interest rate, since the average expected recoveries fully reflect the credit risk component. For loans that do not have a repayment schedule (current account loans, overdrafts and credit cards), the fair value is assumed to be equal to the carrying amount.	Negative correlation.
Liabilities to clients under deposits	Sales margin	Fair values are estimated using valuation techniques, with an assumption that when the deposit is accepted, the fair value is equal to the carrying amount. The fair value of term deposits is equal to the sum of future expected cash flows discounted at the balance sheet date. The cash flow discounting rate is the appropriate risk-free market rate plus the current sales margin. The margin is determined on the basis of deposits accepted in the last quarter, by product group and by maturity. For short-term deposits (current deposits, overnight deposits and savings accounts), the carrying amount is taken as fair value.	Negative correlation
Options embedded in certificates of deposit issued by PZU Group companies and options concluded in the interbank market to hedge embedded option positions.	Model parameters	Embedded instruments are plain vanilla options and exotic options for individual shares, indices, commodities and other market indicators, including interest rate indices and exchange rates and their baskets. All separated options are offset on an ongoing basis on the interbank market. Currency options are measured based on the Garman-Kohlhagen option pricing model (and in the case of barrier and Asian options based on the so-called extended Garman-Kohlhagen model). Exotic options embedded in deposit agreements and their offsets are measured using the Monte-Carlo technique, assuming a geometric Brownian motion model for risk factors.	
Non-liquid bonds and loans	Credit spreads	Spreads are observed on all bonds (their series) or loans of the same issuer or a similar issuer. These spreads are observed on the dates of issue of new bond series, dates of conclusion of new loan agreements and dates of market transactions on the receivables following from such bonds and loans.	Negative correlation
Investment property and property designated for sale	Capitalization rate	Capitalization rate is determined through analysis of rates of return obtained in transactions for similar properties.	Negative correlation
	Construction costs	Construction costs are determined based on market construction costs less costs incurred as at the date of measurement.	Positive correlation
Derivatives	Monthly rental rate per 1 m ² of relevant space or per parking space	Rental rates are observed for similar properties of similar quality, in similar locations and with a similar size of leased space.	Positive correlation
	Model parameters	Currency options are measured based on the Garman-Kohlhagen option pricing model (and in the case of barrier and Asian options based on the so-called extended Garman-Kohlhagen model). Exotic options embedded in deposit agreements and their offsets are measured using the Monte-Carlo technique, assuming a geometric Brownian motion model for risk factors.	
Own issues and subordinated loans	Issue spread above the market curve	If the historical spread of issues above the market curve is used, these issues are classified at level III of the fair value hierarchy.	Negative correlation

Measured assets	Unobservable data	Description	Impact on measurement
Equity instruments not quoted on an active market		Quotations of financial services, current value of future forecasted profit or loss of the company or measurement models based on available market data.	

10.2.1. Assets and liabilities measured at fair value

Assets and liabilities measured at fair value	31 December 2022				31 December 2021			
	Level I	Level II	Level III	Total	Level I	Level II	Level III	Total
Assets								
Investment financial assets measured at fair value through other comprehensive income	23,429	11,200	5,975	40,604	22,733	17,002	6,072	45,807
Equity instruments	1,254	-	394	1,648	297	-	471	768
Debt securities	22,175	11,200	5,581	38,956	22,436	17,002	5,601	45,039
Investment financial assets measured at fair value through profit or loss	2,813	4,951	411	8,175	2,625	6,142	446	9,213
Equity instruments	578	-	252	830	615	57	259	931
Participation units and investment certificates	215	4,645	16	4,876	164	5,631	21	5,816
Debt securities	2,020	306	143	2,469	1,846	454	166	2,466
Loan receivables from clients	-	-	438	438	-	-	406	406
Measured at fair value through other comprehensive income	-	-	254	254	-	-	246	246
Measured at fair value through profit or loss	-	-	184	184	-	-	160	160
Financial derivatives	-	16,172	25	16,197	1	8,273	54	8,328
Investment property	-	160	2,861	3,021	-	166	2,607	2,773
Liabilities								
Derivatives	-	20,956	-	20,956	-	11,860	20	11,880
Liabilities to members of consolidated mutual funds	-	305	-	305	-	380	-	380
Investment contracts for the client's account and risk (unit-linked)	-	238	-	238	-	267	-	267
Liabilities on borrowed securities (short sale)	875	-	-	875	686	-	-	686

Movement in assets and liabilities classified as level III of the fair value hierarchy in the year ended 31 December 2022	Investment financial assets measured at fair value through other comprehensive income		Investment financial assets measured at fair value through profit or loss			Derivatives – assets	Derivatives – liabilities	Loan receivables from clients measured at fair value		Investment property
	Equity	Debt	Equity	Investment certificates	Debt			through other comprehensive income	through profit or loss	
Beginning of the period	471	5,601	259	21	166	54	20	246	160	2,607
Purchase/opening of the position/granting	2	234	-	-	1,096	-	-	151	53	144
Reclassification from Level II ¹⁾	-	2,040	-	-	67	1	-	-	-	7
Reclassification from own properties	-	-	-	-	-	-	-	-	-	7
Reclassifications from assets held for sale to investment property	-	-	-	-	-	-	-	-	-	23
Profit or loss recognized in the profit and loss account:	-	142	28	(4)	4	(10)	(10)	14	3	73
- interest income calculated using the effective interest rate	-	146	-	-	2	(1)	-	14	3	-
- result on derecognition of financial instruments and investments	-	38	-	-	1	(1)	(9)	-	-	-
- net movement in fair value of assets and liabilities measured at fair value	-	(42)	28	(4)	1	(8)	(1)	-	-	73
Profits or losses recognized in other comprehensive income	(80)	(256)	-	-	-	-	-	(6)	-	1
Sales/settlements/repayments/conversions	-	(780)	(42)	-	(1,049)	(19)	(10)	(151)	(32)	-
Reclassification to assets held for sale or own properties	-	-	-	-	-	-	-	-	-	(1)
Reclassification to Level II ¹⁾	-	(1,400)	-	-	(141)	(1)	-	-	-	-
Foreign exchange differences	1	-	7	(1)	-	-	-	-	-	-
End of the period	394	5,581	252	16	143	25	-	254	184	2,861

¹⁾ Information on the restatements is presented in section 10.3.

Movement in assets and liabilities classified as level III of the fair value hierarchy in the year ended 31 December 2021	Investment financial assets measured at fair value through other comprehensive income		Investment financial assets measured at fair value through profit or loss			Derivatives – assets	Derivatives – liabilities	Loan receivables from clients measured at fair value		Investment property
	Equity	Debt	Equity	Investment certificates	Debt			through other comprehensive income	through profit or loss	
Beginning of the period	347	11,431	370	21	94	93	60	1,475	187	2,307
Purchase/opening of the position/granting	-	3,376	-	-	5,938	2	2	53	1	310
Reclassification from Level I ¹⁾	-	7	-	-	-	-	-	-	-	-
Reclassification from Level II ¹⁾	-	788	-	-	36	-	-	-	-	142
Reclassifications from assets held for sale to investment property	-	-	-	-	-	-	-	-	-	157
Profit or loss recognized in the profit and loss account:	-	68	604	(2)	(17)	19	10	44	(4)	160
- interest income calculated using the effective interest rate	-	113	-	-	2	7	-	44	(4)	-
- result on derecognition of financial instruments and investments	-	2	586	-	1	-	-	-	-	-
- net movement in fair value of assets and liabilities measured at fair value	-	(47)	18	(2)	(20)	12	10	-	-	160
Profits or losses recognized in other comprehensive income	39	(161)	-	-	-	-	-	(24)	-	-
Sales/settlements/repayments/conversions	-	(9,034)	(720)	-	(5,880)	(64)	(52)	(1,302)	(24)	-
Reclassification to assets held for sale	-	-	-	-	-	-	-	-	-	(469)
Reclassification to Level II ¹⁾	-	(874)	-	-	(5)	-	(4)	-	-	-
Change in the composition of the Group	85	-	-	-	-	4	4	-	-	-
Foreign exchange differences	-	-	5	2	-	-	-	-	-	-
End of the period	471	5,601	259	21	166	54	20	246	160	2,607

¹⁾ Information on the restatements is presented in section 10.3.

10.2.1.1. Change in the fair value measurement methodology for financial instruments measured at fair value

Both in 2022 and in 2021, no changes were made in the fair value measurement method for financial instruments measured at fair value that would be of material significance for the consolidated financial statements.

10.2.1.2. Investment property classified as level III fair value

The table below presents the key parameters used in measuring the largest investment properties (including those presented as held for sale).

All real properties classified as level III fair value were measured by the income approach using the investment method and the straight capitalization technique or using a mixed approach. This valuation uses non-observable inputs such as:

- capitalization rate – determined through analysis of rates of return obtained in transactions for similar properties;
- monthly rental rate per 1 m² of relevant space or per parking space.

Properties classified as level III	Type of space	31 December 2022			31 December 2021		
		Carrying amount	Rental fees included in the measurement	Capitalization rates included in the measurement	Carrying amount	Rental fees included in the measurement	Capitalization rates included in the measurement
Investment property							
office	Office Parking lot	958	12.50 – 14.50 EUR 40.00 – 90.00 EUR	6.25% – 7.50%	962	12.50 – 14.50 EUR 40.00 – 75.00 EUR	6.00% – 7.25%
warehouse	Office Warehouse	1,680	9.50 – 11.00 EUR 3.65 – 4.00 EUR	4.95%-6.70%	1,421	8.50 – 9.50 EUR 3.30 – 4.00 EUR	5.00% – 6.50%
commercial	Commercial	151	depending on size of leased space	6.25%-7.50%	159	depending on size of leased space	7.75% – 10.00%
other		72			65		
Total		2,861			2,607		
Investment property held for sale							
warehouse	Office Warehouse	607	9.50 EUR 3.60 – 3.65 EUR	5.70%-6.20%	557	8.50 – 9.00 EUR 3.30 – 3.50 EUR	5.50% – 6.50%
other		6	-	-	41	-	-
Total		613			598		

Properties classified as level III	Fair value	Estimate variable	Assumed fluctuation of the estimate variable	Impact on measurement
Investment property	2,861	Capitalization rate	+ 0.25 p.p.	(116)
			- 0.25 p.p.	127
		Monthly rent rate	+ 5%	114
			- 5%	(114)
Investment property held for sale	613	Capitalization rate	+ 0.25 p.p.	(24)
			- 0.25 p.p.	26
		Monthly rent rate	+ 5%	26
			- 5%	(26)

10.2.2. Assets and liabilities not measured at fair value

Fair value of assets and liabilities for which it is only disclosed	31 December 2022					31 December 2021				
	Level I	Level II	Level III	Total fair value	Carrying amount	Level I	Level II	Level III	Total fair value	Carrying amount
Assets										
Loan receivables from clients measured at amortized cost	-	-	212,467	212,467	212,255	-	-	214,781	214,781	214,602
Investment financial assets measured at amortized cost	40,218	36,396	20,448	97,062	106,054	39,455	8,663	32,383	80,501	83,270
Debt securities	40,218	32,226	10,170	82,614	91,646	39,455	6,436	25,489	71,380	74,183
Buy-sell-back transactions	-	2,277	4,794	7,071	7,071	-	1,590	2,527	4,117	4,117
Term deposits with credit institutions	-	1,893	1,187	3,080	3,068	-	637	754	1,391	1,384
Loans	-	-	4,297	4,297	4,269	-	-	3,613	3,613	3,586
Liabilities										
Liabilities to banks	-	1,637	6,117	7,754	7,720	-	2,726	4,762	7,488	7,470
Liabilities to clients under deposits	-	-	278,277	278,277	278,058	-	-	264,818	264,818	265,155
Liabilities on the issue of own debt securities ¹⁾	-	10,315	821	11,136	11,090	-	5,418	539	5,957	5,940
Subordinated liabilities ¹⁾	-	2,788	3,331	6,119	6,184	-	2,748	3,520	6,268	6,274
Liabilities on account of repurchase transactions	-	930	1	931	931	-	846	359	1,205	1,207

¹⁾ The liabilities classified to level II are those whose measurement was not affected by unobservable parameters. They are primarily liabilities on account of bonds issued by Pekao.

10.3 Reclassification between fair value hierarchy levels

If the method of measurement of assets or liabilities changes because of e.g. losing (or obtaining) access to quotations observed on an active market, such assets or liabilities are reclassified between levels I and II.

Assets or liabilities are reclassified between Levels II and III (or accordingly between Levels III and II) when:

- there is a change in the measurement model resulting from the application of new unobservable factors (or accordingly observable ones); or
- previously used factors that had a significant impact on the measurement are no longer observable (or accordingly become observable) on the active market.

Reclassifications between different levels of the fair value hierarchy are effected on the date ending each quarter according to the value as at that date.

In 2022, the following transfers of assets between fair value levels were made:

- corporate, municipal bonds, which were measured using market price information for comparable financial instruments, as well as corporate, municipal and Treasury bonds and foreign exchange and interest rate derivatives, for which the impact of estimated credit parameters did not significantly affect the valuation, and capital market derivatives, for which the estimated volatility did not significantly affect the valuation, were reclassified from Level III to Level II;
- reclassification from Level II to Level III was applied to corporate and municipal bonds for which the impact exerted by the estimated credit parameters on the measurement was significant and capital market derivatives for which estimated volatility exerted a significant impact on the measurement;
- reclassification from Level II to Level I was applied to government bonds measured using market quotations was discontinued due to an increase in market activity.

In 2021, the following transfers of assets between fair value levels were made:

- reclassification from Level III to Level II was applied to corporate bonds measured using market information about the prices of comparable financial instruments, corporate and municipal bonds for which the estimated credit parameters had no significant impact on their measurement and capital market derivatives for which the estimated correlation had no significant impact on their measurement;
- reclassification from Level II to Level III was applied to corporate and municipal bonds for which the impact exerted by the estimated credit parameters was material and capital market derivatives for which the estimated volatility exerted a significant impact on the measurement;
- reclassification from Level I to Level II was applied to government bonds measured using information on the prices of comparable financial instruments and participation units in mutual funds for which measurement based on market quotations was discontinued due to a decline in market activity.

11. Gross written premiums

11.1 Accounting policy

Premium written under insurance contracts and inward reinsurance contracts is recognized on the date of concluding an insurance contract.

11.1.1. Non-life insurance

Gross written premiums include amounts, regardless of whether these amounts have been paid:

- due for the entire liability period, regardless of its length, on account of the insurance contracts concluded in the reporting period – if the duration of the liability period is specified;

- due in the reporting period – if the duration of the liability period is not specified.

These premiums are adjusted by the change in the provision for unearned premiums in the reporting period and reduced by premiums due to reinsurers.

11.1.2. Life insurance

Gross written premiums include the amounts due during the reporting period for the concluded insurance contracts, regardless of whether these amounts have been paid and whether they relate to the whole or part of the reporting period. These premiums are adjusted by the change in the provision for unearned premiums in the reporting period and reduced by premiums due to reinsurers.

11.2 Quantitative data

Gross written premiums	1 January – 31 December 2022	1 January – 31 December 2021
Gross written premiums in non-life insurance	17,941	16,120
In direct insurance	17,916	16,109
In indirect insurance	25	11
Gross written premiums in life insurance	8,769	8,960
Individual insurance premiums	1,601	1,929
Individually continued insurance premiums	2,073	2,055
Group insurance premiums	5,095	4,976
Total gross written premiums	26,710	25,080

In 2022 and in 2021, PZU Group companies did not conclude inward reinsurance contracts in life insurance.

Gross written premium in non-life insurance (by accounting classes prescribed by section II of the attachment to the Insurance Activity Act)	1 January – 31 December 2022	1 January – 31 December 2021
Accident and sickness insurance (group 1 and 2)	963	1,101
Motor third party liability insurance (group 10)	5,536	5,354
Other motor insurance (group 3)	4,586	3,970
Marine, aviation and transport insurance (groups 4, 5, 6, 7)	209	149
Insurance against fire and other property damage (groups 8 and 9)	4,325	3,593
TPL insurance (groups 11, 12, 13)	1,067	963
Credit and suretyship (groups 14, 15)	90	67
Assistance (group 18)	692	578
Legal protection (group 17)	14	13
Other (group 16)	459	332
Total	17,941	16,120

12. Revenue from commissions and fees

12.1 Accounting policy

The fees and commissions not settled according to the effective interest rate are recognized to reflect the transfer of the promised services to the client in the amount reflecting the fee to which the PZU Group is entitled in return for such services. Commission income is settled by the straight-line method when they are charged in advance for a non-recurring activity or when they pertain to granted loans with undetermined schedules of future cash flows for which the effective interest rate cannot be determined. Such commissions include commissions received on current account overdrafts, revolving loans, guarantees and lines of credit (for example, commissions for granting, increasing or extending a limit).

Other fees and commissions for financial services not related directly with the creation of a financial asset are recognized based on a five-step revenue recognition model (identification of the contract with the client, identification of the individual obligations contained in the contract, pricing, allocation of the price to the individual elements of the contract, recognition of revenue when the conditions associated with the individual elements of the contract are met).

Revenue from cash management services, brokerage services, investment advisory services, financial planning, investment banking services and asset management services and margins earned on FX transactions with clients are recognized once in the profit and loss account when the service is provided.

Revenue from management of open-end pension funds and revenue and fees received from funds and mutual fund companies are recognized at the time of the performance.

12.2 Quantitative data

Revenue from commissions and fees	1 January – 31 December 2022	1 January – 31 December 2021
Banking activity	4,608	4,105
Margin on foreign exchange transactions with clients	1,038	858
Brokerage fees	181	203
Fiduciary activity	76	77
Payment card and credit card services	1,407	1,109
Fees on account of insurance intermediacy activities	21	32
Credits and loans	508	472
Bank account-related services	482	543
Transfers	307	287
Cash operations	122	106
Receivables purchased	80	66
Guarantees, letters of credit, collections, promises	103	94
Commissions on leasing activity	95	87
Other commission	188	171
Revenue and payments received from funds and mutual fund management companies	363	474
Pension insurance	161	154
Other	4	5
Total revenue from commissions and fees	5,136	4,738

13. Interest income calculated using the effective interest rate

13.1 Accounting policy

Interest income is recognized on an accrual basis based on the effective interest rate.

Interest income comprises interest on financial instruments measured at amortized cost and at fair value through other comprehensive income.

The effective interest rate is the rate that discounts estimated future cash flows to the gross carrying amount of the financial asset. Interest income is calculated on the gross carrying amount, except for credit-impaired assets and purchased or originated credit-impaired (POCI) financial assets. For such assets, interest income is calculated on the gross carrying amount less allowances for expected credit losses.

Interest income calculated using the effective interest rate also includes income and expenses from fees and commissions directly related to the creation of financial assets with specific repayment schedules. These include commissions for granting credit, for changing the terms of a loan agreement, changing the form of financing, restructuring a loan, or commissions for brokering loans and credits.

13.2 Estimates and assumptions

On 14 July 2022, the President of the Republic of Poland signed the Crowdfunding Act.

According to Article 73 of the act, the bank is obliged to suspend repayment of a mortgage loan granted in the Polish currency at the borrower's request, except for loans indexed or denominated to a currency other than the Polish currency. Suspension of loan repayment is available only with respect to one contract, entered into for the purpose of satisfying one's own housing needs. Suspension of loan repayment is available in the following periods:

- from 1 August to 30 September 2022 – two months;
- from 1 October to 31 December 2022 – two months;
- from 1 January to 31 December 2023 – one month in each quarter.

During the suspension of the loan repayment the borrower is not obligated to make any payments under the loan agreement, except for the fees for insurance associated with such agreements.

In accordance with the provisions of IFRS 9, the right introduced by the act for clients to take advantage of suspension of loan repayments requires adjusting the gross carrying amount of such loans by determining and recognizing in the PZU Group's financial result the estimated cost resulting from this entitlement as the difference between:

- the present value of expected cash flows from the loan portfolio that meets the criteria of the act (the gross carrying amount of that portfolio) and
- the present value of expected cash flows from this portfolio determined on the basis of modified cash flows taking into account the provisions of the act, discounted at the current effective interest rate,

taking into account the estimate level of participation of eligible clients who, in the opinion of the PZU Group, will exercise this right.

An important assumption that requires judgment regarding the amount of this loss is the number of clients applying for a moratorium period. According to original estimates, the loss recognized on this account in the PZU Group's financial result in Q3 2022 amounted to PLN 2,931 million and was recognized as a reduction of interest income calculated using the effective interest rate method.

As of 31 December 2022, the PZU Group has revisited its previous estimates (including the timeliness of the portfolio subject to loan suspension rights and the expected participation rate). The participation rate estimated for 2023 was 76% for the Pekao portfolio and 69% for the Alior Bank portfolio. As a result of this verification, the final amount charged to the consolidated profit and loss account for 2022 was PLN 2,460 million. Since this estimate represents the expected exercise of the right following from the act by clients, and the actual realization will take place during the effective term of the act, it will be necessary to update the estimate periodically and recognize the effects of these revaluations in the PZU Group's current results.

The total gross carrying amount of loan receivables from clients under memorandum period was PLN 49,092 million as of 31 December 2022. Changing the assumed participation rates of clients under memorandum period by 10% would increase the cost on this account by PLN 215 million.

13.3 Quantitative data

Interest income calculated using the effective interest rate	1 January – 31 December 2022	1 January – 31 December 2021
Loan receivables from clients	12,658 ¹⁾	7,272
Debt securities measured at fair value through other comprehensive income	1,452	740
Debt securities measured at amortized cost	2,323	1,481
Buy-sell-back transactions	403	15
Term deposits with credit institutions	176	20
Loans	285	121
Receivables purchased	593	105
Receivables	88	13
Cash and cash equivalents	648	15
Interest income calculated using the effective interest rate, total	18,626	9,782

¹⁾ Including a reduction in revenue of 2,460 million from moratorium periods.

14. Other net investment income

14.1 Accounting policy

Dividends are recognized as income when the right to dividend is acquired.

14.2 Quantitative data

Other net investment income	1 January – 31 December 2022	1 January – 31 December 2021
Hedge derivatives	(361)	460
Dividend income, including:	57	70
Investment financial assets measured at fair value through profit or loss	30	44
Investment financial assets measured at fair value through other comprehensive income	27	26
Foreign exchange differences	(240)	(240)
Income on investment property	306	244
Investment property maintenance expenses	(135)	(108)
Investment activity expenses	(28)	(33)
Other	17	25
Other net investment income, total	(384)	418

15. Result on derecognition of financial instruments and investments

15.1 Accounting policy

The result on derecognition of financial instruments and investments contains gains and losses arising from the sale of financial instruments and investment property.

15.2 Quantitative data

Result on derecognition of financial instruments and investments	1 January - 31 December 2022	1 January - 31 December 2021
Investment financial assets	(225)	605
Debt instruments measured at fair value through other comprehensive income	(29)	25
Financial instruments measured at fair value through profit or loss	(214)	565
Equity instruments	(38)	530
Participation units and investment certificates	(133)	37
Debt instruments	(43)	(2)
Instruments measured at amortized cost	18	15
Loan receivables from clients measured at amortized cost	8	15
Derivatives	(171)	(106)
Short sale	22	23
Receivables	(126)	(140)
Investment property	-	7
Other	-	3
Result on derecognition of financial instruments and investments, total	(492)	407

16. Movement in allowances for expected credit losses and impairment losses on financial instruments

16.1 Accounting policy

Impairment losses contain the balance of impairment losses recognized and reversed in accordance with the rules described in section 39.1.

16.2 Quantitative data

Movement in allowances for expected credit losses and impairment losses on financial instruments	1 January - 31 December 2022	1 January - 31 December 2021
Investment financial assets	(69)	(28)
Debt instruments measured at fair value through other comprehensive income	14	1
Instruments measured at amortized cost	(83)	(29)
- debt instruments	(40)	(25)
- term deposits with credit institutions	(23)	(6)
- loans	(20)	2
Loan receivables from clients	(3,068)	(1,867)
Measured at amortized cost	(3,068)	(1,890)
Measured at fair value through other comprehensive income	-	23
Guarantees and sureties given	(11)	61
Receivables	(97)	(15)
Cash and cash equivalents	(8)	-
Associates	(18)	-
Movement in allowances for expected credit losses and impairment losses on financial instruments, total	(3,271)	(1,849)

17. Net movement in fair value of assets and liabilities measured at fair value

17.1 Accounting policy

Information on the method used to determine fair value of assets and liabilities is presented in section 10.

17.2 Quantitative data

Net movement in fair value of assets and liabilities measured at fair value	1 January – 31 December 2022	1 January – 31 December 2021
Investment financial instruments measured at fair value through profit or loss	(175)	226
Equity instruments	(42)	55
Debt securities	138	70
Participation units and investment certificates	(271)	101
Derivatives	674	338
Measurement of liabilities to members of consolidated mutual funds	40	(6)
Investment contracts for the client's account and risk (unit-linked)	34	8
Investment property	119	234
Loan receivables from clients	12	(3)
Net movement in fair value of assets and liabilities measured at fair value, total	704	797

18. Other operating income

Other operating income	1 January – 31 December 2022	1 January – 31 December 2021
Revenues on the sales of products, merchandise and services by non-insurance companies	1,033	894
Revenues from direct claims handling on behalf of other insurance undertakings	162	165
Reversal of provisions	181	78
Reimbursement of the costs of pursuit of claims	68	36
Reinsurance commissions and profit participation	127	107
Interest for late payment of amounts due under direct insurance and outward reinsurance	50	47
Gain from sale of property, plant and equipment	57	37
Other	218	238
Other operating income, total	1,896	1,602

19. Claims, benefits and movement in technical provisions

19.1 Accounting policy

The expenses of the reporting period include all the costs of claims and benefits paid under the concluded insurance contracts with direct and indirect claims and benefits handling expenses and movement in provision for outstanding claims and benefits.

19.1.1. Non-life insurance

In non-life insurance costs of claims and benefits are reduced by all the salvage and subrogation received and by the movement in estimated salvage and subrogation.

19.1.2. Life insurance

Benefits paid include all payments and deductions made during the reporting period for benefits incurred during the reporting period and previous periods (including annuities and surrenders) and all direct and indirect, external and internal claim handling expenses. Claims handling expenses also include expenses related to disputes.

The value of benefits is recognized at the amount actually paid out, after deducting returns and refunds (except for outward reinsurance refunds), plus the movement in the provision for unpaid claims, less the reinsurers' share in claims paid and in provisions.

19.2 Quantitative data

Claims, benefits and movement in technical provisions	1 January – 31 December 2022	1 January – 31 December 2021
Claims, benefits and movement in technical provisions	16,894	16,130
In non-life insurance	10,843	9,127
- claims and benefits	8,114	7,442
- movement in technical provisions	1,828	795
- claims handling expenses	901	890
In life insurance	6,051	7,003
- claims and benefits	6,439	6,776
- movement in technical provisions	(522)	102
- benefits handling expenses	134	125
Reinsurers' share in claims, benefits and movement in technical provisions	(1,352)	(399)
In non-life insurance	(1,352)	(399)
Total net insurance claims and benefits	15,542	15,731

Claims and benefits handling expenses by type	1 January – 31 December 2022	1 January – 31 December 2021
Consumption of materials and energy	16	15
Third party services	312	288
Taxes and charges	31	33
Employee expenses	470	470
Depreciation of property, plant and equipment	15	17
Amortization of intangible assets	27	25
Other, including:	164	167
- awarded costs, interest and fines in indemnity cases	153	157
- other	11	10
Total claims and benefits handling expenses	1,035	1,015

20. Fee and commission expenses

Fee and commission expenses	1 January - 31 December 2022	1 January - 31 December 2021
Costs of card and ATM transactions, including card issue costs	1,044	817
Commissions on acquisition of banking clients	106	115
Fees for the provision of ATMs	46	44
Costs of awards to banking clients	18	16
Costs of bank transfers and remittances	50	42
Additional services attached to banking products	23	21
Brokerage fees	28	28
Costs of administration of bank accounts	6	5
Costs of banknote operations	29	22
Fiduciary activity expenses	25	29
Other commission	74	55
Total fee and commission expenses	1,449	1,194

21. Interest expense

21.1 Accounting policy

Interest expenses are recognized in the profit and loss account using the effective interest rate.

21.2 Quantitative data

Interest expense	1 January - 31 December 2022	1 January - 31 December 2021
Term deposits	1,638	41
Current deposits	1,002	70
Own debt securities issued	828	208
Hedge derivatives	723	28
Loans	72	4
Repurchase transactions	298	7
Bank loans contracted by PZU Group companies	117	21
Leases	46	23
Other	43	16
Total interest expenses	4,767	418

22. Acquisition expenses

22.1 Accounting policy

Acquisition expenses include expenses related to the conclusion and extension of insurance agreements. Direct acquisition expenses include, among others, cost of commission for insurance intermediaries, employee remuneration costs associated with the conclusion of insurance agreements, cost of attestations, expert opinions and studies related to the accepted risk. Indirect acquisition expenses include costs of advertising and promoting insurance products and costs associated with the examination of applications and issuing policies.

According to the accrual accounting principle, some of the acquisition expenses are amortized over time, in accordance with the principles described in sections 31.1.1 and 31.1.2.

22.2 Quantitative data

Acquisition expenses by type	1 January – 31 December 2022	1 January – 31 December 2021
Consumption of materials and energy	38	30
Third party services	121	106
Taxes and charges	7	6
Employee expenses	786	727
Depreciation of property, plant and equipment	38	40
Amortization of intangible assets	36	33
Other, including:	3,078	2,716
- commissions in insurance business	2,972	2,629
- advertising	96	80
- other	10	7
Movement in deferred acquisition expenses	(201)	(86)
Total acquisition expenses	3,903	3,572

23. Administrative expenses

23.1 Accounting policy

Administrative expenses include, among others:

- in insurance business – insurance activity expenses not classified as acquisition expenses, related to premium collection, expenses related to management of the insurance contracts portfolio, reinsurance contracts portfolio and to overall management of PZU Group's insurance companies;
- in banking activity – bank's operating expenses, including employee, material costs, depreciation, taxes and fees.

23.2 Quantitative data

Administrative expenses by type	1 January – 31 December 2022	1 January – 31 December 2021
Consumption of materials and energy	158	122
Third party services	1,504	1,260
Taxes and charges	98	108
Employee expenses	4,181	3,808
Depreciation of property, plant and equipment	575	578
Amortization of intangible assets	427	436
Compensation of group insurance administrators in work establishments	204	203
Other, including:	428	311
- advertising	284	202
- other	144	109
Total administrative expenses	7,575	6,826

24. Employee expenses

Employee expenses	1 January - 31 December 2022	1 January - 31 December 2021
Payroll	4,977	4,600
Defined contribution plans, including:	894	832
– charges on salary	785	735
– 3rd pillar pension insurance, including costs of EPS or ECS contributions incurred in the period	109	97
Other	202	210
Total employee expenses	6,073	5,642

Employee expenses are recognized under “Claims and movement in technical provisions”, “Acquisition expenses”, “Administrative expenses” and “Other operating expenses” in the consolidated profit and loss account.

25. Other operating expenses

Other operating expenses	1 January - 31 December 2022	1 January - 31 December 2021
Levy on financial institutions	1,452	1,290
Expenses of the core business of non-insurance and non-banking companies	1,188	1,003
Direct claims handling expenses on behalf of other insurance undertakings	166	175
Compulsory payments to insurance market institutions and banking market institutions	152	143
Bank Guarantee Fund	365	396
Costs of the Bank Protection Scheme fee	696	-
Costs of the Borrower Support Fund fee	231	-
Insurance Guarantee Fund	63	62
Fee to the National Fire Brigade Headquarters and Association of Voluntary Fire Brigades	23	24
Expenditures for prevention activity	38	53
Establishment of provisions	753	295
Amortization of intangible assets purchased in company acquisition transactions	99	128
Recognition of impairment losses for non-financial assets	124	57
Donations	45	23
Late interest, penalties, indemnities	15	5
Costs of pursuit of claims	90	92
Other	146	171
Other operating expenses, total	5,646	3,917

Borrower Support Fund

The crowdfunding law introduces an obligation to make additional contributions to the Borrower Support Fund (BSF). The amount of additional contributions attributable to individual banks was determined by the BSF Board by resolution, based on information from the Chairman of the KNF. The BSF offers support to both borrowers who have taken out loans in PLN and in a foreign currency. The support is repayable, but part of the support can be written off under certain conditions.

Determination of the level of the contribution attributable to the given bank will be influenced primarily by the following factors:

- The share of the given bank in the gross carrying value of its housing loan portfolio, where the delay in repayment of principal or interest exceeds 90 days in comparison with the entire banking sector in Poland;
- Possible exemption of some lenders that do not meet regulatory capital and liquidity requirements from making contributions to the BSF.

The premium for the PZU Group, charged to the results for 2022, amounted to PLN 231 million.

26. Income tax

26.1 Accounting policy

Income tax shown in the profit and loss account includes the current and deferred parts.

The deferred part is the difference between the balance of deferred tax liabilities and assets at the end and at the beginning of the reporting period with a reservation that changes in deferred tax liabilities and assets related to operations charged to equity are also charged to equity.

26.2 Quantitative data

Income tax	1 January – 31 December 2022	1 January – 31 December 2021
Profit before tax (consolidated)	7,605	7,454
CIT rate (or range of CIT rates) for the country of the parent company's seat (%)	19%	19%
Income tax which would be calculated as the product of gross accounting profit of the entities and the CIT rate in the country of the parent company's seat	1,445	1,416
Differences between the income tax calculated above and the income tax shown in the profit and loss account:	901	604
– levy on financial institutions	276	238
– provisions for credit receivables in the part not covered by deferred tax	44	36
– measurement of financial assets	(14)	9
– recognition/reversal of impairment losses for receivables, not classified as tax-deductible expenses	79	45
– recognition/reversal of other provisions and impairment losses for assets, not classified as tax-deductible expenses	314	25
– fee payable to BFG	69	76
– Borrower Support Fund	44	-
– tax on foreign exchange differences levied in Sweden in connection with the case described in section 59.4	-	72
– differences due to different tax rates	(14)	(11)
– taxation of insurance activities in Ukraine	24	15
– dividends	30	38
– tax losses	21	38
– other tax increases, waivers, exemptions, deductions and reductions	28	23
Income tax shown in the profit and loss account	2,346	2,020
Total amount of current and deferred tax	1 January – 31 December 2022	1 January – 31 December 2021
1. Recognized in the profit and loss account, including:	2,346	2,020
– current tax	1,672	1,492
– deferred tax	674	528
2. Recognized in other comprehensive income, including:	(671)	(1,209)
– deferred tax	(671)	(1,209)

Income tax on other comprehensive income items	1 January – 31 December 2022	1 January – 31 December 2021
Gross other comprehensive income	(3,595)	(6,357)
Income tax	671	1,209
Valuation of debt instruments	400	522
Measurement of loan receivables from clients	1	9
Cash flow hedging	295	702
Valuation of equity instruments	(29)	(17)
Actuarial gains and losses related to provisions for employee benefits	4	(7)
Net other comprehensive income	(2,924)	(5,148)

The PZU Group is comprised of units operating in different countries and subject to different tax regulations. Regulations governing value added tax, corporate income tax, personal income tax or contributions to social security undergo frequent changes. The regulations in effect in the countries where the PZU Group operates also contain confusing provisions, which result in differences of opinion concerning their legal interpretation between various state authorities and enterprises. Tax and other settlements (e.g. regarding customs or foreign currencies) may be inspected by authorities (in Poland – for a period of five years), which may levy high fines and any additional liabilities assessed during the inspection bear interest. These phenomena generate tax risk, as a result of which the amounts reported in the consolidated financial statements may change at a later date after the final amounts are determined by tax authorities.

27. Earnings per share

27.1 Accounting policy

Basic earnings per share are calculated by dividing profit or loss attributable to ordinary equity holders of PZU by the weighted average number of common shares outstanding during the period.

The weighted average number of common shares outstanding during the period is the number of ordinary shares outstanding at the beginning of the period, adjusted by the number of ordinary shares bought back or issued during the period, weighted by the ratio reflecting the period (in days) to the total number of shares in the period.

27.2 Quantitative data

Earnings per share	1 January – 31 December 2022	1 January – 31 December 2021
Net profit attributable to the equity holders of the parent company	3,374	3,336
Weighted average basic and diluted number of common shares	863,390,384	863,344,936
Number of outstanding shares	863,523,000	863,523,000
Average weighted number of treasury shares (held by consolidated entities)	132,616	178,064
Basic and diluted earnings (losses) per common share (in PLN)	3.91	3.86

In the 2022 and in 2021, there were no transactions or events resulting in the dilution of earnings per share.

28. Goodwill

28.1 Accounting policy

Goodwill, whose initial value has been determined in a manner described in section 6.5 is not amortized, but at the end of each financial year and any time there are any indications of impairment, it is tested for impairment. The goodwill impairment test involves assessing the recoverable amount of the individual cash-generating units to which goodwill has been allocated and comparing it with their carrying amount (including the allocated goodwill). If the recoverable amount is lower than the impairment

loss applies first to the goodwill allocated to the cash-generating unit. The cash-generating unit, for which the test is performed may not be larger than an operating segment.

28.2 Quantitative data

Goodwill	31 December 2022	31 December 2021
Pekao ¹⁾	1,715	1,715
LD ²⁾	518	508
Medical companies	307	288
Mass insurance segment in non-life insurance (Link4)	221	221
Balta	42	41
Other	5	5
Total goodwill	2,808	2,778

¹⁾ Includes goodwill on acquisition of PIM and Idea Bank.

²⁾ Includes goodwill on the acquisition of the LD branch in Estonia.

Movement in goodwill	1 January - 31 December 2022	1 January - 31 December 2021
Gross goodwill at the beginning of the period	4,094	4,092
- acquisition of medical companies	21	4
- acquisition of Idea Bank's enterprise	-	1
- foreign exchange differences	9	(3)
Gross goodwill at the end of the period	4,124	4,094
Impairment losses at the beginning of the period	(1,316)	(1,316)
- impairment charges - medical companies	(2)	-
- foreign exchange differences	2	-
Impairment losses - at the end of the period	(1,316)	(1,316)
Net goodwill at the end of the period	2,808	2,778

28.3 Testing for impairment

Impairment tests for goodwill were performed as at 31 December 2022 for all the CGUs, to which goodwill was allocated.

The goodwill impairment test involves a comparison of carrying amounts (including the allocated goodwill) and recoverable amounts of the CGUs to which goodwill has been allocated. An impairment loss for a CGU should be recognized in the profit and loss account if CGU's recoverable amount is less than its carrying amount.

Cash-generating units (CGUs)

Goodwill is allocated to the individual companies (constituting CGUs for the purposes of the impairment test) and is monitored at this level. During the final purchase price allocation, the goodwill arising from the acquisition of Link4 was fully allocated to the mass insurance segment in non-life insurance, which - due to the scale of integration of Link4's business with PZU under the 'two brands' strategy that assumed synergies resulting from the management of the mass client portfolio and sale of additional insurance products - is the smallest CGU to which goodwill can be allocated. Goodwill on the acquisition of PIM and Idea Bank was fully allocated to Pekao, since that was the lowest level at which goodwill is monitored at the Group level.

Carrying amount

The carrying amount comprises CGU net assets, including intangible assets such as trademarks and client relations, which were identified in connection with the acquisition of CGU and goodwill. For the entities, in which non-controlling interests exist, the carrying amount for the purposes of the test is increased by the portion of goodwill allocated to non-controlling interests (it is not presented in the consolidated statement of financial position).

For the purposes of the test, the net carrying amount of the mass insurance segment was determined on the basis of allocation of the PZU Group's net assets. The assets were allocated in the proportion corresponding to the ratio of the hypothetical solvency capital requirement, which may be allocated to the mass insurance segment, to the total solvency capital requirement. The Euler method was used to allocate the solvency capital requirement. This method allocates to a segment the risk measures, which are based on Solvency II regulations and take into account diversification effects.

Recoverable amount

The recoverable amount is the higher of the fair value less costs of disposal or the value in use. As at 31 December 2022, the recoverable amount was estimated on the basis of value in use.

The recoverable amount of individual CGUs was determined based on value in use of the entities, using the discounted cash flow method based on the most current financial projections, for a period, which are presented in the table below. The forecast horizon for Pekao was extended for 6 years to ensure normalization of financial data in view of the observed increased volatility of the legal and economic environment.

CGU financial projections take into account the product offering and market growth prospects, balance sheet structure and available capital surpluses, to-date results and expected macroeconomic parameters, such as the interest rate levels and economic growth.

The discount rates used for testing of the insurance companies were set at the cost of equity level. For medical companies, the weighted average cost of capital (WACC) was used. The cost of equity was set in accordance with the CAPM model. Also, size premiums were applied in justified cases. Risk-free rates were determined based on the yield of 10-year government bonds offered by the country where the CGU is domiciled and the betas were based on measures of similar listed entities. Market premiums were 5.25% (5.0% in 2021).

For regulated entities (banks and insurance companies, financial institutions), the projected cash flows incorporate the requirement to maintain an adequate level of own funds (economic capital). Cash flows of the mass insurance segment were calculated based on the amount of hypothetical dividends that the segment could have paid if it had operated as a separate insurance company. The amount of dividends depends on the projected technical results of that segment, net of income tax and levy on financial institutions and capital surpluses allocated to that segment as at the balance sheet date and in subsequent periods. The growth ratios after the projection period were determined while taking into account the long-term growth prospects for the market on which the entity conducts its business. Growth rates do not exceed the long-term GDP growth forecasts of the country in nominal terms.

Cash generating unit	31 December 2022			31 December 2021		
	Discount rate	Growth rate after the projection period	Timeframe of financial projections	Discount rate	Growth rate after the projection period	Timeframe of financial projections
Pekao	12.9%	3.5%	6 years	9.7%	3.5%	3 years
LD	8.6%	3.0%	3 years	5.5%	3.0%	3 years
Mass insurance segment	11.7%	2.5%	3 years	8.8%	2.5%	3 years
Balta	8.8%	3.0%	3 years	6.1%	3.0%	3 years
Medical companies	9.3%	2.0%-3.0%	3 years	6.0%-6.7%	2.0%-3.0%	3 years

Sensitivity analysis

Estimation of the recoverable amount is a complex process that requires the parent company's Management Board to make professional judgments and apply complicated and subjective assumptions. Relatively small changes in significant assumptions may have a significant impact on the results of the recoverable amount measurement. The significant assumptions in the process of estimation of the recoverable amount are: growth rates during the residual period, discount rates, expected profitability level, future capital requirements and minimum level of solvency as a condition for the disbursement of dividends by regulated entities. The next table presents the surplus of recoverable amounts over carrying amounts and the maximum discount rates and minimum marginal growth rates after the projection period, at which the carrying amounts and recoverable amounts of the individual CGUs. The surplus amount was stated as PZU's share.

Cash generating unit	31 December 2022			31 December 2021		
	Surplus (PLN million)	Marginal value of the discount rate	Marginal value of the growth rate after the projection period	Surplus (PLN million)	Marginal value of the discount rate	Marginal value of the growth rate after the projection period
Pekao	200	13.2%	2.5%	1,376	11.2%	(4.3%)
LD	642	11.5%	(0.5%)	833	7.2%	1.1%
Balta	229	12.4%	(1.5%)	163	7.5%	1.5%
Mass insurance segment	5,400 ¹⁾	27.2%	n/a ²⁾	4,848 ¹⁾	20.2%	n/a ²⁾
Medical companies	183	9.4%-17.5%	(9.6%)-1.7%	956	10.6%-28.1%	(54.4%)-(3.8%)

¹⁾ Surplus of the recoverable amount of the mass insurance segment over its carrying amount, including the Link4 acquisition goodwill allocation allocated to that segment.

²⁾ The amount of discounted cash flows in the projection period is higher than the carrying amount attributed to the mass insurance segment and therefore no marginal growth rate was presented after the projection period.

29. Intangible assets

29.1 Accounting policy

Intangible assets are recognized if they are identifiable, controlled and it is likely that future economic benefits will be achieved, which can be ascribed to a specific assets and the purchase price or production cost of the asset can be measured reliably.

Intangible assets are measured at purchase prices or production costs less amortization charges and impairment losses.

The method used to measure the fair value of an intangible asset acquired in a business combination is presented in section 6.5.

Intangible assets include in particular: computer software, economic copyrights, licenses and concessions, as well as assets acquired in business combinations: trademarks, customer relations (including core deposit intangibles), relations with brokers, future profit from the purchased portfolio of insurance contracts, etc.

Intangible assets are amortized over their estimated economic life:

- assets other than intangible assets acquired in a business combination – using a straight-line method for the period of two to five years. In justified cases, after a case-by-case analysis, a different amortization rate may be used corresponding to the expected useful life of the intangible asset. Since a decision was made that the planned useful life of the Platforma Everest product system in PZU would be 10 years, the annual amortization rate of 10% was adopted for the system;
- intangible assets acquired in a business combination (except for the acquired trademarks) – for the period of one to fifteen years, based on the value of profits generated in the respective years;
- trademarks acquired in a business combination, as intangible assets with a useful period determined as indefinite are not amortized, but at the end of each financial year and any time there are any indications of impairment, they are tested for impairment.

Impairment

At the end of the reporting period, assets are reviewed to determine whether there are any indications of impairment. If such indications are identified or, in the case of trademarks, at each yearend date, the asset is tested for impairment in order to determine its recoverable amount.

Impairment loss on an intangible asset is deemed to have occurred if the expected economic benefits associated with an intangible asset or a property, plant and equipment item decrease as a result of technological changes, decommissioning, withdrawal from use or occurrence of other indications that the usefulness of the asset is reduced.

Where necessary, an impairment loss is recognized reducing the portfolio value to its recoverable amount. In the situation when an asset does not generate cash flows that would be largely independent from cash flows generated by other assets, the analysis is carried out for the smallest identifiable group of assets generating independent cash flows, to which the asset belongs. The possible impairment losses are recognized as cost in the consolidated profit and loss account under “Other operating expenses”.

If there is any indication that an impairment loss recognized in prior periods for an asset other than goodwill may no longer exist or may have decreased then the recoverable amount of such an asset is estimated. The impairment loss recognized in previous periods is reversed to the recoverable amount that does not exceed its carrying amount that would have been determined (net of amortization) had the impairment loss not previously been recognized. Reversal of an impairment loss is recognized as revenue in the in the consolidated profit and loss account under “Other operating income”.

Impairment tests for trademarks were performed as at 31 December 2022. As a result of the tests, no need has been found to recognize impairment losses. The value in use of trademarks was determined on the basis of the value of discounted cash flows from potential license fees. The value of license fees was set at 0.4–0.8% of the Pekao Group retail and corporate segment’s revenue and 1% of gross written premium of insurance companies. The discount rates were established based on the cost of capital plus specific premiums: 2 p.p. – for Pekao, 0,7–1,0 p.p. – for insurance companies. The growth rates after the forecast period of the respective CGUs were assumed at the same level as in goodwill impairment tests, as described in section 28.3.

29.2 Quantitative data

Movement in intangible assets (by type groups) in the year ended 31 December 2022	Software, licenses and similar assets	Trademarks	Client relations	Intangible assets under development	Other intangible assets	Total intangible assets
Gross value at the beginning of the period	3,873	622	1,999	703	101	7,298
Changes:	101	1	14	149	9	274
– purchases and in-house production	19	-	-	682	-	701
– change in composition of the group	-	-	9	-	-	9
– transfers	523	-	-	(531)	8	-
– sale and liquidation	(129)	-	-	(1)	-	(130)
– foreign exchange differences and other	(312)	1	5	(1)	1	(306)
Gross value at the end of the period	3,974	623	2,013	852	110	7,572
Accumulated amortization at the beginning of the period	(2,120)	-	(1,501)	-	(81)	(3,702)
Changes:	(242)	-	(104)	-	(5)	(351)
– amortization for the period	(496)	-	(99)	-	(6)	(601)
– sale and liquidation	121	-	-	-	-	121
– foreign exchange differences and other	133	-	(5)	-	1	129
Accumulated amortization at the end of the period	(2,362)	-	(1,605)	-	(86)	(4,053)
Impairment losses at the beginning of the period	(15)	(100)	(61)	(17)	-	(193)
Changes charged to other operating expenses	(47)	-	-	(5)	-	(52)
Other changes	6	-	-	2	-	8
Impairment losses – at the end of the period	(56)	(100)	(61)	(20)	-	(237)
Net value of intangible assets at the end of the period	1,556	523	347	832	24	3,282

Movement in intangible assets (by type groups) in the year ended 31 December 2021	Software, licenses and similar assets	Trademarks	Client relations	Intangible assets under development	Other intangible assets	Total intangible assets
Gross value at the beginning of the period	3,442	622	1,999	565	99	6,727
Changes:	431	-	-	138	2	571
– purchases and in-house production	23	-	-	782	2	807
– transfers	625 ¹⁾	-	-	(632)	3	(4)
– sale and liquidation	(262)	-	-	(6)	(3)	(271)
– foreign exchange differences and other	45	-	-	(6)	-	39
Gross value at the end of the period	3,873	622	1,999	703	101	7,298
Accumulated amortization at the beginning of the period	(1,871)	-	(1,373)	-	(76)	(3,320)
Changes:	(249)	-	(128)	-	(5)	(382)
– amortization for the period	(498)	-	(128)	-	(8)	(634)
– sale and liquidation	246	-	-	-	3	249
– transfers	3	-	-	-	-	3
Accumulated amortization at the end of the period	(2,120)	-	(1,501)	-	(81)	(3,702)
Impairment losses at the beginning of the period	(23)	(100)	(61)	(17)	-	(201)
Changes charged to other operating expenses	(7)	-	-	(2)	-	(9)
Claims handling	15	-	-	2	-	17
Impairment losses – at the end of the period	(15)	(100)	(61)	(17)	-	(193)
Net value of intangible assets at the end of the period	1,738	522	437	686	20	3,403

¹⁾ Including PLN (4) million on account of transfers to the held-for-sale category under IFRS 5.

Amortization of intangible assets, by their presentation in consolidated profit and loss account	1 January – 31 December 2022	1 January – 31 December 2021
Claims, benefits and movement in technical provisions	27	25
Acquisition expenses	36	33
Administrative expenses	427	436
Other operating expenses ¹⁾	111	140
Total amortization	601	634

¹⁾ Including the amortization of intangible assets purchased in company acquisition transactions in the amount of PLN 99 million (in 2021: PLN 128 million).

30. Other assets

Other assets	31 December 2022	31 December 2021
Reinsurance settlements	133	90
Estimated salvage and subrogation	202	198
Deferred IT expenses	205	110
Accrued direct claims handling receivables	47	53
Costs settled over time	121	74
Inventories	56	57
Accrued commissions	17	18
Other assets	30	33
Total other assets	811	633

Other assets	31 December 2022	31 December 2021
Short-term	675	521
Long-term	136	112
Total other assets	811	633

31. Deferred acquisition expenses

31.1 Accounting policy

Deferred acquisition expenses are tested for impairment since that they are included in the calculation of adequacy of technical provisions.

31.1.1. Non-life insurance

Acquisition expenses in non-life insurance are deferred in line with the principles applicable to the determination of the provision for unearned premiums by amortizing them through the profit and loss account during the indemnity period (recognized under "Acquisition expenses").

Deferrals apply to acquisition commissions and a portion of indirect acquisition expenses related to the signing and renewals of insurance policies, in particular costs related directly to sales processes, which cannot be classified as direct acquisition expenses, in particular costs of activities related to: agreement origination processes and underwriting processes in sales units (separated by using working time questionnaires), automatic and manual entry of policies into production systems (registration of sales) and contact center operations related to the sales of policies.

31.1.2. Life insurance

In life insurance, for traditional profit-sharing products (life and endowment insurance or birth assurance), acquisition expenses are amortized over time using the Zillmer method.

31.2 Quantitative data

Deferred acquisition expenses	31 December 2022	31 December 2021
Short-term	1,583	1,414
Long-term	179	159
Total deferred acquisition expenses	1,762	1,573

Movement in deferred acquisition expenses	1 January - 31 December 2022	1 January - 31 December 2021
Net value at the beginning of the period	1,573	1,550
Non-life insurance	1,438	1,423
Life insurance	135	127
Acquisition expenses pertaining to future periods	2,322	1,898
Amortization for the period recognized in financial result	(2,124)	(1,854)
Impairment losses in the period	(14)	(21)
Other changes	5	-
Net value at the end of the period	1,762	1,573
Non-life insurance	1,621	1,438
Life insurance	141	135

32. Property, plant and equipment

32.1 Accounting policy

Property, plant and equipment components are measured at purchase price or production cost less accumulated depreciation and impairment losses.

All property, plant and equipment components and their important components are depreciated, with the exception of land and property, plant and equipment in construction. Depreciation of an asset begins when it is available for use, i.e. when it is in the location and condition necessary for it to be capable of operating in the intended manner.

Annual depreciation rates for material assets are presented below:

Asset category	Rate
Cooperative ownership rights to apartments, cooperative rights to commercial premises	2,5%
Buildings and structures	1.5% – 10%
Machinery and technical equipment	10% – 40%
Means of transport	14% – 33%
IT hardware	14.3% – 40%
Other non-current assets	7% – 20%

Assets held under a finance lease contract are depreciated over their useful life, provided that there is rational certainty that they would be purchased or ownership transferred. Otherwise, they are depreciated for a period no longer than the term of the lease.

The principles for recognizing impairment losses are the same as those applicable to intangible assets that are described in section 29.1.

32.2 Quantitative data

Movement in property, plant and equipment (by type groups) in the year ended 31 December 2022	Plant and machinery	Means of transport	Property, plant and equipment under construc- tion	Real estate	Other property, plant and equipment	Total property, plant and equipment
Gross value at the beginning of the period	1,606	363	283	4,409	697	7,358
Changes:	(2)	(10)	122	408	(41)	477
– purchases and in-house production	12	4	427	4	11	458
– increase in right-of-use assets	2	12	-	621	-	635
– change in composition of the group	-	-	-	6	2	8
– sale and liquidation	(184)	(22)	-	(64)	(121)	(391)
– decrease in right-of-use assets (termination of agreements, sales)	-	(21)	-	(111)	-	(132)
– transfers to categories held for sale under IFRS 5	(5)	-	-	(68)	-	(73)
– transfers to and from the investment property category	-	-	-	(5)	-	(5)
– transfers	171	15	(285)	28	71	-
– foreign exchange differences and other	2	2	(20)	(3)	(4)	(23)
Gross value at the end of the period	1,604	353	405	4,817	656	7,835
Accumulated amortization at the beginning of the period	(945)	(114)	-	(1,702)	(300)	(3,061)
Changes:	(12)	(14)	-	(281)	29	(278)
– amortization for the period	(198)	(21)	-	(113)	(84)	(416)
– amortization of right-of-use assets	-	(17)	-	(293)	(1)	(311)
– sale and liquidation	182	17	-	42	113	354
– sale, liquidation and other movement in right-of-use assets	-	12	-	46	-	58
– transfers to categories held for sale under IFRS 5	5	-	-	38	-	43
– foreign exchange differences and other	(1)	(5)	-	(1)	1	(6)
Accumulated amortization at the end of the period	(957)	(128)	-	(1,983)	(271)	(3,339)
Impairment losses at the beginning of the period	(14)	(3)	-	(120)	(16)	(153)
Changes charged to other operating expenses	(6)	(1)	-	(47)	(3)	(57)
Changes charged to other operating income	2	1	-	-	1	4
Other changes	-	-	-	8	6	14
Impairment losses – at the end of the period	(18)	(3)	-	(159)	(12)	(192)
Net value of property, plant and equipment – at the end of the period	629	222	405	2,675	373	4,304
– including net value of right-of-use assets	2	77	-	1,079	3	1,161

The value of right-of-use assets is presented in section 51.

Movement in property, plant and equipment (by type groups) in the year ended 31 December 2021	Plant and machinery	Means of transport	Property, plant and equipment under construction	Real estate	Other property, plant and equipment	Total property, plant and equipment
Gross value at the beginning of the period	1,459	287	229	4,271	657	6,903
Changes:	147	76	54	138	40	455
– purchases and in-house production	20	10	414	16	14	474
– increase in right-of-use assets	-	95	-	162	1	258
– change in composition of the group	23	3	-	1	4	31
– sale and liquidation	(72)	(69)	-	(31)	(88)	(260)
– decrease in right-of-use assets (termination of agreements, sales)	-	(9)	-	(39)	(2)	(50)
– transfers to categories held for sale under IFRS 5	(1)	-	-	(9)	-	(10)
– transfers	171	45	(348)	25	107	-
– foreign exchange differences and other	6	1	(12)	13	4	12
Gross value at the end of the period	1,606	363	283	4,409	697	7,358
Accumulated amortization at the beginning of the period	(809)	(114)	-	(1,356)	(306)	(2,585)
Changes:	(136)	-	-	(346)	6	(476)
– amortization for the period	(208)	(23)	-	(124)	(75)	(430)
– amortization of right-of-use assets	-	(16)	-	(276)	(1)	(293)
– sale and liquidation	69	46	-	39	77	231
– sale, liquidation and other movement in right-of-use assets	-	-	-	1	2	3
– transfers to categories held for sale under IFRS 5	1	-	-	5	-	6
– foreign exchange differences and other	2	(7)	-	9	3	7
Accumulated amortization at the end of the period	(945)	(114)	-	(1,702)	(300)	(3,061)
Impairment losses at the beginning of the period	(13)	(1)	-	(106)	(10)	(130)
Changes charged to other operating expenses	(1)	(2)	-	(17)	(6)	(26)
Other changes	-	-	-	3	-	3
Impairment losses – at the end of the period	(14)	(3)	-	(120)	(16)	(153)
Net value of property, plant and equipment – at the end of the period	647	246	283	2,587	381	4,144
– including net value of right-of-use assets	-	91	-	821	4	916

33. Investment property

33.1 Accounting policy

Investment property is held to earn rental income or obtain benefits from increases in value, or both. Investment property is not used in operating activities.

Investment property is initially recognized at purchase price or production cost, plus transaction costs. After initial recognition it is measured at fair value, in accordance with the rules described in section 10.1.6. Gains and losses resulting from the change of fair value of investment property are recognized in the consolidated profit and loss account under “Net movement in fair value of assets and liabilities measured at fair value” item in the period in which they occurred.

If owner-occupied property becomes investment property, depreciation is charged up to the date of reclassification and impairment losses, if any, are recognized and then:

- if the carrying amount determined as at that date is higher than the fair value, the difference is recognized in the consolidated profit and loss account under “Other operating expenses”;

- if the existing carrying amount is lower than the fair value then the difference is first recognized in the consolidated profit and loss account under “Other operating income” as a reversal of the impairment loss (up to the amount of the impairment loss previously recognized, whereby the amount recognized in the consolidated profit and loss account may not exceed the amount of the impairment loss that would have been determined after deducting the accumulated depreciation had no impairment loss been recognized), and the remaining part of the difference – in other comprehensive income under “Reclassification of real property from property, plant and equipment to investment property”.

On subsequent disposal of the investment property, revaluation reserve may be transferred to supplementary capital.

33.2 Estimates and assumptions

The impact of the factors having a significant impact on the investment property valuations is presented in section 10.2.1.2.

33.3 Quantitative data

Movement in investment property	1 January – 31 December 2022	1 January – 31 December 2021
Net carrying amount at the beginning of the period	2,773	2,493
Additions	176	592
– purchase	146	430
– transfer from property intended for personal use	7	-
– transfers from held for sale categories under IFRS 5	23	162
Reductions	(3)	(470)
– sale and liquidation	-	(1)
– transfer to property intended for personal use	(2)	-
– transfers to held for sale categories under IFRS 5	(1)	(469)
Gain (loss) on remeasurement to fair value	75	158
– through profit or loss	73	158
– through other comprehensive income	2	-
Net carrying amount at the end of the period, including	3,021	2,773
– buildings and structures	2,760	2,514
– own land	191	196
– perpetual usufruct right to land and cooperative ownership right to premises	70	63

The item “Perpetual usufruct of land” contains the right to use land for up to 99 years. This right may be traded.

The fair value of investment property results from valuations by independent appraisers conducted mainly in 2022.

34. Entities measured by the equity method

34.1 Accounting policy

Associates are entities on which significant influence is exerted, or the power to participate in the financial and operating policy decisions of the investee but is not control or joint control.

A joint venture is a contractual arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the arrangement.

Associates and joint ventures are measured by the equity method, in which on initial recognition the investment is recognized at purchase price. The goodwill resulting from a surplus of the purchase price over the fair value of identifiable assets and liabilities of the associate is recognized in the carrying amount of the investment. In the next periods the carrying amount is adjusted to recognize the investor’s share in the associate’s or joint venture’s gains or losses and impairment losses, if any. The share of the PZU Group in the financial result of the associates and joint ventures is recognized in the consolidated profit and loss account under “Share of the net profit of entities measured by the equity method”, while share in movement in other comprehensive

income under other comprehensive income. Distributions received from an associate or joint venture reduce the carrying amount of the investment.

34.2 Quantitative data

Associates	31 December 2022	31 December 2021
Krajowy Integrator Płatności SA	48	44
Sigma BIS SA	4	-
RUCH	-	48
GSU Pomoc Górniczy Klub Ubezpieczonych SA	-	1
Associates, total	52	93

Information on interests held in the capital and votes of the respective associates is presented in section 2.2. There are no restrictions (e.g. resulting from any findings regarding borrowings, regulatory requirements or agreements) as to the ability of transferring funds by the associates in the form of cash dividends.

35. Loan receivables from clients

35.1 Accounting policy

Loan receivables from clients are measured at the end of the reporting period as follows:

- at fair value through profit or loss – assets that do not pass the SPPI test because of the contractual financial leverage element that increases volatility of cash flows (this applies among others to student loans, loans with subsidies from the Agency for Restructuring and Modernization of Agriculture and some corporate exposures);
- at fair value through other comprehensive income – assets that satisfy the SPPI test and classified in a business model whose objective is achieved by both collecting contractual cash flows and selling the asset;
- at amortized cost – for other assets that satisfy the SPPI test and are held to obtain contractual cash flows.

Information on the SPPI test is presented in section 37.1.1.

Interest on loan receivables from clients measured at amortized cost or at fair value through other comprehensive income, accrued using the effective interest rate, are recognized in the profit and loss account, in the “Net investment income” item.

The change in the fair value of loan receivables from clients is recognized:

- for those measured at fair value through other comprehensive income – in revaluation reserve;
- for those measured at fair value through profit or loss – in the profit and loss account in the “Net movement in fair value of assets and liabilities measured at fair value” item.

Modification of financial assets

If terms and conditions of a financial asset agreement change, the modified and original cash flows are compared. If the identified difference is material then the original financial asset is removed from the statement of financial position and the modified financial asset is recognized at its fair value.

The result as at the date of determining the effects of a material modification is presented in the consolidated profit and loss account under “Result on derecognition of financial instruments and investments”.

Otherwise, the modification does not result in removing the financial asset from the statement of financial position, and only the new gross carrying amount is calculated and the result from the modification is recognized in the consolidated profit and loss account in the “Interest income calculated using the effective interest rate” line item.

The assessment whether the modification of financial assets is material or immaterial is conditional upon satisfaction of certain qualitative and quantitative criteria.

The following criteria are used to assess the materiality of modifications:

- qualitative – change of currency (unless it results from existing contractual provisions or requirements of the applicable legal regulations), change (replacement) of debtor (except for addition/resignation of a joint debtor or inheritance of a loan), consolidation of several exposures into a single one under an annex or an arrangement/restructuring agreement;
- quantitative – among others % thresholds of margin change, increase of the financing amount and changes in the residual financing period (for revolving products).

Occurrence of at least one of these criteria results in a material modification.

35.2 Quantitative data

Loan receivables from clients	31 December 2022	31 December 2021
Measured at amortized cost	212,255	214,602
Measured at fair value through other comprehensive income	254	246
Measured at fair value through profit or loss	184	160
Total loan receivables from clients	212,693	215,008

Loan receivables from clients	31 December 2022	31 December 2021
Retail segment	108,537	116,523
Operating loans	191	214
Consumer finance	24,809	27,013
Consumer finance loans	4,292	4,284
Loan to purchase securities	14	32
Overdrafts in credit card accounts	1,123	1,106
Loans for residential real estate	77,220	82,923
Other mortgage loans	647	717
Car financing loans	2	-
Other receivables	239	234
Business segment	104,156	98,485
Operating loans	35,005	31,859
Car financing loans	1	3
Investment loans	30,107	27,992
Receivables purchased (factoring)	8,224	7,393
Overdrafts in credit card accounts	109	157
Loans for residential real estate	59	76
Other mortgage loans	9,872	9,522
Finance lease	14,935	13,694
Other receivables	5,844	7,789
Total loan receivables from clients	212,693	215,008

36. Financial derivatives

36.1 Accounting policy

Derivatives include financial instruments held for trading as well as financial instruments constituting a hedge of fair value or cash flows.

Derivative financial instruments held for trading are recognized at fair value on the transaction date and subsequently measured at fair value in accordance with the rules described in section 10.1.4.

Derivatives are recognized as financial assets if their fair value is positive or as financial liabilities if it is negative.

Changes of fair value of derivatives that are not hedges are recognized under “Net movement in fair value of assets and liabilities at fair value”.

The PZU Group took advantage of the option available in IFRS 9 and continues to apply hedge accounting in accordance with IAS 39.

Hedge accounting recognizes is used to recognize the offsetting effects on profit or loss of changes in the fair values of the hedging instrument and the hedged item. Hedge accounting is applied if the following conditions are fulfilled:

- at the inception of the hedge there is formal designation and documentation of the hedging relationship and the risk management objective and strategy for undertaking the hedge. The documentation includes identification of the hedging instrument, the hedged item, the nature of the risk being hedged and how the entity will assess the hedging instrument's effectiveness;
- the hedge is expected to be highly effective in achieving offsetting changes in fair value or cash flows, consistently with the originally documented risk management strategy for that particular hedging relationship;
- in the case of cash flows it is highly probable that a hedged transaction occurs that is exposed to changes in cash flows affecting the profit and loss account;
- the effectiveness of the hedge can be reliably measured, i.e. the cash flows of the hedged item and the fair value of the hedging instrument can be reliably measured;
- The hedge is assessed on an ongoing basis and determined actually to have been highly effective throughout the financial reporting periods for which the hedge was designated.

The PZU Group ceases to apply hedge accounting if the hedging instrument expires or is sold, terminated or exercised (for this purpose, the replacement or rollover of a hedging instrument into another hedging instrument is not an expiration or termination if such replacement or rollover is part of the hedging strategy), if the hedge no longer meets the hedge accounting criteria or the hedging designation is revoked.

36.2 Types of hedging strategies

36.2.1. Fair value hedges

Changes in the fair value measurement of financial instruments designated as hedged items are recognized, in the part related to the hedged risk, in the profit and loss account. The remaining part of changes in the carrying amount are recognized in accordance with the general rules applicable to a given class of financial instruments.

Changes in the fair value measurement of derivatives designated as hedges in hedge accounting are recognized in full in profit or loss, in the same line item where the effect of changes in the measurement of the hedged item are recognized.

Adjustment for hedged risk on the hedged interest item is amortized to profit and loss no later than at the moment when hedge accounting is discontinued.

The main identified potential sources of inefficiencies in fair value hedges include:

- impact of counterparty credit risk and own credit risk on the fair value of hedging transactions which is not reflected in the fair value of the hedged item;
- differences between the maturities of IRS transactions and the maturities of debt securities;
- differences in the level of interest coupons generated by the hedged item and hedging instruments.

Fair value hedge of fixed-coupon debt securities denominated in PLN, EUR and USD

Pekao hedges some of its interest rate risk associated with a change in the fair value of the hedged item caused by volatility of market interest rates through IRS transactions. This is the way to hedge the interest rate risk component arising from changes in the fair value of the hedged item caused only by volatility of market interest rates (WIBOR, EURIBOR, LIBOR USD). The hedged risk component was responsible in the past for a significant part of the changes in the fair value of the hedged item.

The table presents nominal values and interest rate of hedging instruments

	Cur- rency	31 December 2022 Maturity					31 December 2021 Maturity				
		Up to 3 months	Over 3 months up to 1 year	Over 1 year to 5 years	Over 5 years	Total	Up to 3 months	Over 3 months up to 1 year	Over 1 year to 5 years	Over 5 years	Total
Par value		-	-	200	-	200	-	-	200	-	200
Average interest rate of the fixed-rate part	PLN	-	-	7.2	-	7.2	-	-	2.6	-	2.6
Par value		94	-	760	152	1,006	-	-	699	287	986
Average interest rate of the fixed-rate part	EUR	2.4	-	1.0	1.1	1.1	-	-	0.0	(0.1)	0.0
Par value		-	-	-	-	-	102	-	701	-	803
Average interest rate of the fixed-rate part	USD	-	-	-	-	-	3.7	-	1.4	-	1.7
Total		94	-	960	152	1,206	102	-	1,600	287	1,989

Impact of the hedge relationship on the statement of financial position and the financial result	31 December 2022			31 December 2021		
	Hedges of securities measured at		Total	Hedges of securities measured at		Total
	amortized cost	fair value		amortized cost	fair value	
Hedging instruments						
Par value	200	1,006	1,206	200	1,789	1,989
Carrying amount – assets	22	67	89	6	-	6
Carrying amount – liabilities	-	5	5	-	91	91
Change in the fair value of the hedging instrument, on the basis of which hedge inefficiency is estimated	16	168	184	33	68	101
Hedge inefficiency amount recognized in the profit and loss account	1	3	4	1	3	4
Hedged items						
Carrying amount – assets	178	967	1,145	193	1,933	2,126
Accumulated adjustment to fair value of the hedged item included in the carrying amount of the hedged item recognized in the statement of financial position – assets	(22)	(58)	(80)	(7)	111	104
Change in value of the hedged item used as the basis for estimating hedge inefficiency	(15)	(165)	(180)	(32)	(65)	(97)
Accumulated adjustment to fair value of a hedged item remaining in the statement of financial position, for those hedged items for which the balance sheet item is no longer adjusted to fair value	-	-	-	-	-	-

Fair value hedge of fixed-coupon debt securities denominated in PLN and EUR

Alior Bank hedges the risk of changes in the fair value through other comprehensive income of purchased fixed-rate debt securities measured at fair value through other comprehensive income or at amortized cost on account of changes in the interest rate swap curve. As part of this strategy Alior Bank establishes hedging relationships in which the fixed-coupon debt securities denominated in the given currency are the hedged instrument and interest rate swaps (IRS) in the same currency are the hedging instrument.

Under this strategy Alior Bank hedges the risk following from changes in the interest rate swap curve (risk of volatility of market swap interest rates) excluding other effects changing the valuation (including asset swap spread).

The table presents nominal values and interest rate of hedging instruments:

	Cur- rency	31 December 2022 Maturity					31 December 2021 Maturity				
		Up to 3 months	Over 3 months up to 1 year	Over 1 year to 5 years	Over 5 years	Total	Up to 3 months	Over 3 months up to 1 year	Over 1 year to 5 years	Over 5 years	Total
Par value		-	-	250	-	250	-	-	250	-	250
Average interest rate of the fixed-rate part	PLN	-	-	0.2	-	0.2	-	-	0.2	-	0.2
Par value		-	-	157	-	157	-	-	154	-	154
Average interest rate of the fixed-rate part	EUR	-	-	0.7	-	0.7	-	-	0.7	-	0.7
Total		-	-	407	-	407	-	-	404	-	404

Impact of the hedge relationship on the statement of financial position and the financial result	31 December 2022			31 December 2021		
	Hedging of investment financial assets measured at amortized cost	Hedging of investment financial assets measured at fair value	Total	Hedging of investment financial assets measured at amortized cost	Hedging of investment financial assets measured at fair value	Total
Hedging instruments						
Par value	157	250	407	154	250	404
Carrying amount – assets	16	20	36	15	3	18
Carrying amount – liabilities	-	-	-	-	-	-
Change in the fair value of the hedging instrument, on the basis of which hedge inefficiency is estimated	(2)	16	14	17	4	21
Hedge inefficiency amount recognized in the profit and loss account	(1)	-	(1)	(3)	1	(2)
Hedged items						
Carrying amount – assets	422	144	566	182	158	340
Accumulated adjustment to fair value of the hedged item included in the carrying amount of the hedged item recognized in the statement of financial position – assets	(6)	-	(6)	(14)	-	(14)
Change in value of the hedged item used as the basis for estimating hedge inefficiency	1	(16)	(15)	(20)	(3)	(23)
Accumulated adjustment to fair value of a hedged item remaining in the statement of financial position, for those hedged items for which the balance sheet item is no longer adjusted to fair value	-	-	-	-	-	-

36.2.2. Cash flow hedges

Cash flow hedge is a hedge of the exposure to variability in cash flows that is attributable to a particular risk associated with a recognized asset or liability or a highly probable planned transaction and could affect profit or loss.

The result of measurement of the effective part of cash flow hedges is recognized in other comprehensive income. Ineffective part of the hedging is presented through profit or loss – in the profit and loss account in the “Net movement in fair value of assets and liabilities measured at fair value” item.

Where the interest rate risk and currency risk are hedged in credit and deposit portfolios, the approach to managing these portfolios allows new transactions to be added to the hedge relationship or transactions to be removed following repayment or transfer to non-performing items. As a result, the exposure of these portfolios to interest rate risk and currency risk changes

constantly. Since the age structure of the portfolios changes frequently, the hedged items are designated dynamically and the hedging items are allowed to adjust to these changes.

In cash flow hedge relationships, the main identified potential sources of inefficiencies include:

- the impact of counterparty credit risk and own credit risk on the fair value of hedging instruments, i.e. interest rate swaps (IRSs), basis swaps and FX swaps, which is not reflected in the fair value of the hedged item;
- differences between the frequencies of restatement of hedging instruments and hedged loans and deposits.

36.2.2.1. Hedging of the portfolio of loan receivables from clients and variable-interest securities denominated in PLN

Pekao hedges its interest rate risks associated with the volatility of market reference rates (WIBOR) generated by the portfolio of loan receivables from clients and variable-interest securities denominated in PLN, by using interest rate swaps (IRS).

	Cur- rency	31 December 2022 Maturity					31 December 2021 Maturity				
		Up to 3 months	Over 3 months up to 1 year	Over 1 year to 5 years	Over 5 years	Total	Up to 3 months	Over 3 months up to 1 year	Over 1 year to 5 years	Over 5 years	Total
Par value		200	3,372	17,010	7,959	28,541	-	1,000	16,703	6,120	23,823
Average interest rate of the fixed-rate part	PLN	1.1	1.3	1.7	4.7	2.5	-	1.7	1.6	2.0	1.7

Impact of the hedge relationship on the statement of financial position and the financial result

	31 December 2022	31 December 2021
Hedging instruments		
Par value	28,541	23,823
Carrying amount – assets	104	-
Carrying amount – liabilities	3,089	1,403
Change in the fair value of the hedging instrument, on the basis of which hedge inefficiency is estimated	(1,250)	(2,191)
Profit or loss arising out of net position hedge, captured in a separate line item of other comprehensive income	-	-
Hedge inefficiency amount recognized in the profit and loss account	2	(14)
Amount transferred from cash flow hedge accounting capital to the profit and loss account as reclassification adjustment	-	-
Hedged items		
Amount equal to the change in the fair value of a hypothetical derivative representing the hedged item, which forms the basis for estimating hedge inefficiency in the period	1,234	2,196
Balance of the hedge accounting capital item for relations, for which hedge accounting will be continued after the end of the reporting period	(2,760)	(1,508)
Balance remaining in the hedge accounting capital item for those relations, to which hedge accounting is no longer applied	-	-

36.2.2.2. Hedging of the deposit portfolio in PLN

Pekao hedges its interest rate risk associated with the volatility of market reference rate (WIBOR) generated by the portfolios of deposits denominated in the Polish zloty, which are economically equivalent to a long-term liability with variable interest rate, by using interest rate swaps (IRS).

	Cur- rency	31 December 2022 Maturity					31 December 2021 Maturity				
		Up to 3 months	Over 3 months up to 1 year	Over 1 year to 5 years	Over 5 years	Total	Up to 3 months	Over 3 months up to 1 year	Over 1 year to 5 years	Over 5 years	Total
Par value		5	25	116	198	344	-	90	113	231	434
Average interest rate of the fixed-rate part	PLN	7.4	6.2	7.3	6.0	6.5	-	1.4	1.2	1.4	1.3

Impact of the hedge relationship on the statement of financial position and the financial result

	31 December 2022	31 December 2021
Hedging instruments		
Par value	344	434
Carrying amount – assets	39	9
Carrying amount – liabilities	13	6
Change in the fair value of the hedging instrument, on the basis of which hedge inefficiency is estimated	20	43
Profit or loss arising out of net position hedge, captured in a separate line item of other comprehensive income	-	-
Hedge inefficiency amount recognized in the profit and loss account	-	-
Amount transferred from cash flow hedge accounting capital to the profit and loss account as reclassification adjustment	-	-
Hedged items		
Amount equal to the change in the fair value of a hypothetical derivative representing the hedged item, which forms the basis for estimating hedge inefficiency in the period	(20)	(43)
Balance of the hedge accounting capital item for relations, for which hedge accounting will be continued after the end of the reporting period	26	6
Balance remaining in the hedge accounting capital item for those relations, to which hedge accounting is no longer applied	-	-

36.2.2.3. Hedging for the variable interest rate loan portfolio in Swiss francs, the portfolio of loans and lease receivables with variable interest rates in EUR and the portfolio of deposits in PLN

Pekao hedges its exposure to interest rate risk associated with the volatility of market reference rates (WIBOR, EURIBOR) and its exposure to currency risk generated by loan portfolios and lease receivables with a variable interest rate denominated in EUR and deposits in Polish zloty, which economically constitute a long-term liability with a variable interest rate (the connection extended by current and future flows arising from loans and lease receivables with a variable interest rate in EUR) using currency interest rate swaps (basis swaps). CIRS transactions are decomposed into a component hedging the asset portfolio and a component hedging the liability portfolio.

In 2022, Pekao dissolved a hedging relationship in which basis swaps hedged a portfolio of CHF floating-rate loans and a portfolio of PLN deposits economically representing a long-term floating-rate liability. The impact of discontinuing hedge accounting for this relationship on the consolidated profit and loss account was PLN 38 million.

	Cur- rency	31 December 2022 Maturity					31 December 2021 Maturity				
		Up to 3 months	Over 3 months up to 1 year	Over 1 year to 5 years	Over 5 years	Total	Up to 3 months	Over 3 months up to 1 year	Over 1 year to 5 years	Over 5 years	Total
Par value	CHF/ PLN	-	-	-	-	-	-	222	1,748	445	2,415
Par value	EUR/ PLN	455	793	-	-	1,248	285	345	1,223	-	1,853

Impact of the hedge relationship on the statement of financial position and the financial result

	31 December 2022	31 December 2021
Hedging instruments		
Par value	1,248	4,268
Carrying amount – assets	-	-
Carrying amount – liabilities	68	690
Change in the fair value of the hedging instrument, on the basis of which hedge inefficiency is estimated	(4)	5
Profit or loss arising out of net position hedge, captured in a separate line item of other comprehensive income	-	-
Hedge inefficiency amount recognized in the profit and loss account	-	1
Amount transferred from cash flow hedge accounting capital to the profit and loss account as reclassification adjustment	-	-
Hedged items		
Amount equal to the change in the fair value of a hypothetical derivative representing the hedged item, which forms the basis for estimating hedge inefficiency in the period	4	(11)
Balance of the hedge accounting capital item for relations, for which hedge accounting will be continued after the end of the reporting period	(27)	(35)
Balance remaining in the hedge accounting capital item for those relations, to which hedge accounting is no longer applied	-	-

36.2.2.4. Hedging of a portfolio of variable interest rate loans in EUR and term and negotiated deposits in USD

Pekao hedges its exposure to interest rate risk associated with the volatility of market reference rates (EURIBOR, USD LIBOR) and its exposure to currency risk generated by portfolios of variable interest rate loans denominated in the Euro and term and negotiated deposits in the American dollar, which are economically equivalent to long-term variable interest rate liabilities, by using FX swaps.

	Cur- rency	31 December 2022 Maturity					31 December 2021 Maturity				
		Up to 3 months	Over 3 months up to 1 year	Over 1 year to 5 years	Over 5 years	Total	Up to 3 months	Over 3 months up to 1 year	Over 1 year to 5 years	Over 5 years	Total
Par value	EUR/ PLN	703	469	-	-	1,172	6,569	2,690	-	-	9,259
Average rate		4.9	4.8	-	-	4.9	4.6	4.7	-	-	4.6
Par value	EUR/ USD	938	235	-	-	1,173	235	207	-	-	442
Average rate		1.1	1.1	-	-	1.1	1.1	1.1	-	-	1.1
Par value	USD/ PLN	-	-	-	-	-	-	102	-	-	102
Average rate		-	-	-	-	-	-	3.7	-	-	3.7

Impact of the hedge relationship on the statement of financial position and the financial result	31 December 2022	31 December 2021
Hedging instruments		
Par value	2,345	9,803
Carrying amount – assets	48	63
Carrying amount – liabilities	1	31
Change in the fair value of the hedging instrument, on the basis of which hedge inefficiency is estimated	9	(13)
Profit or loss arising out of net position hedge, captured in a separate line item of other comprehensive income	-	-
Hedge inefficiency amount recognized in the profit and loss account	-	-
Amount transferred from cash flow hedge accounting capital to the profit and loss account as reclassification adjustment	-	-
Hedged items		
Amount equal to the change in the fair value of a hypothetical derivative representing the hedged item, which forms the basis for estimating hedge inefficiency in the period	(9)	13
Balance of the hedge accounting capital item for relations, for which hedge accounting will be continued after the end of the reporting period	(3)	(12)
Balance remaining in the hedge accounting capital item for those relations, to which hedge accounting is no longer applied	-	-

36.2.2.5. Hedging of a portfolio of variable interest rate loans and subordinated bonds

Alior Bank hedges its interest rate risk associated with the volatility of market reference rates (WIBOR) generated by the portfolio of loans and subordinated bonds denominated in the Polish zloty, by using interest rate swaps (IRS).

	Cur- rency	31 December 2022 Maturity					31 December 2021 Maturity				
		Up to 3 months	Over 3 months up to 1 year	Over 1 year to 5 years	Over 5 years	Total	Up to 3 months	Over 3 months up to 1 year	Over 1 year to 5 years	Over 5 years	Total
Par value		600	5,365	15,117	-	21,082	600	4,375	17,172	-	22,147
Average interest rate of the fixed-rate part	PLN	1.8	1.5	2.6	-	2.3	2.2	0.5	1.3	-	1.2
Par value		-	-	553	-	553	-	-	543	-	543
Average interest rate of the fixed-rate part	EUR	-	-	(0.3)	-	(0.3)	-	-	(0.3)	-	(0.3)

Impact of the hedge relationship on the statement of financial position and the financial result	31 December 2022	31 December 2021
Hedging instruments		
Par value	21,635	22,690
Carrying amount – assets	142	21
Carrying amount – liabilities	1,679	1,082
Change in the fair value of the hedging instrument, on the basis of which hedge inefficiency is estimated	(1,539)	(891)
Profit or loss arising out of net position hedge, captured in a separate line item of other comprehensive income	(1,062)	(1,200)
Hedge inefficiency amount recognized in the profit and loss account	(2)	(3)
Amount transferred from cash flow hedge accounting capital to the profit and loss account as reclassification adjustment	703	(110)
Hedged items		
Amount equal to the change in the fair value of a hypothetical derivative representing the hedged item, which forms the basis for estimating hedge inefficiency in the period	1,541	939
Balance of the hedge accounting capital item for relations, for which hedge accounting will be continued after the end of the reporting period	(1,476)	(1,117)
Balance remaining in the hedge accounting capital item for those relations, to which hedge accounting is no longer applied	-	-

36.2.2.6. Hedging of a portfolio of fixed-rate bonds denominated in EUR, USD or GBP

PZU hedges foreign currency cash flows generated by the portfolios of fixed-rate bonds denominated in EUR, USD or GBP using cross-currency interest rate swaps (CIRS). This way it hedges the foreign exchange risk component associated with the volatility of exchange rates.

	Cur- rency	31 December 2022 Maturity					31 December 2021 Maturity				
		Up to 3 months	Over 3 months up to 1 year	Over 1 year to 5 years	Over 5 years	Total	Up to 3 months	Over 3 months up to 1 year	Over 1 year to 5 years	Over 5 years	Total
Par value	EUR/ PLN	-	-	1,002	204	1,206	-	-	734	373	1,107
Average rate	PLN	-	-	4.3	4.3	4.3	-	-	4.3	4.3	4.3
Par value	USD / PLN	-	-	438	-	438	-	-	445	-	445
Average rate	PLN	-	-	3.8	-	3.8	-	-	3.8	-	3.8
Par value	GBP / PLN	-	16	358	191	565	-	-	350	211	561
Average rate	PLN	-	4.8	5.0	5.0	5.0	-	-	5.0	5.0	5.0

Impact of the hedge relationship on the statement of financial position and the financial result	31 December 2022	31 December 2021
Hedging instruments		
Par value	2,209	2,113
Carrying amount – assets	-	-
Carrying amount – liabilities	319	332
Change in the fair value of the hedging instrument, on the basis of which hedge inefficiency is estimated	13	(296)
Profit or loss arising out of net position hedge, captured in a separate line item of other comprehensive income	-	-
Hedge inefficiency amount recognized in the profit and loss account	-	-
Amount transferred from cash flow hedge accounting capital to the profit and loss account as reclassification adjustment	(29)	(70)
Hedged items		
Amount equal to the change in the fair value of a hypothetical derivative representing the hedged item, which forms the basis for estimating hedge inefficiency in the period	(13)	296
Balance of the hedge accounting capital item for relations, for which hedge accounting will be continued after the end of the reporting period	(127)	(169)
Balance remaining in the hedge accounting capital item for those relations, to which hedge accounting is no longer applied	-	-

36.2.2.7. Movement in the revaluation reserve and non-controlling interests resulting from the measurement of the hedging derivatives in hedge accounting

Revaluation reserve and non-controlling interests resulting from the measurement of the hedging derivatives in hedge accounting	31 December 2022	31 December 2021
Beginning of the period	(2,835)	843
Profits or losses resulting from hedging – recognized in other comprehensive income	(1,570)	(3,678)
Interest rate risk	(1,591)	(3,443)
Interest rate risk and currency risk	21	(235)
Part of loss transferred to profit and loss account due to no expectation of occurrence of hedged item	38	-
End of the period	(4,367)	(2,835)

36.3 Quantitative data

Derivatives as at 31 December 2022	Base amount by maturities				Total	Assets	Liabilities
	Up to 3 months	Over 3 months up to 1 year	Over 1 year to 5 years	Over 5 years			
Related to interest rates	24,779	83,615	233,388	57,368	399,150	14,426	19,625
Fair value hedging instruments – swap transactions	94	-	1,367	152	1,613	125	5
Cash flow hedging instruments – swap transactions	1,260	9,571	34,594	8,552	53,977	285	5,168
Instruments carried as held for trading, including:	23,425	74,044	197,427	48,664	343,560	14,016	14,452
- forward contracts	11,714	22,413	400	-	34,527	45	36
- SWAP transactions	11,638	47,338	194,509	45,747	299,232	13,870	14,303
- call options (purchase)	42	2,153	2,379	511	5,085	83	97
- put options (sale)	-	1,955	-	2,396	4,351	15	13
- cap floor options	31	185	139	10	365	3	3
Related to exchange rates	45,517	19,661	2,807	-	67,985	1,300	896
Cash flow hedging instruments – swap transactions	1,641	704	-	-	2,345	48	1
Instruments carried as held for trading, including:	43,876	18,957	2,807	-	65,640	1,252	895
- forward contracts	15,808	6,670	1,903	-	24,381	544	322
- SWAP transactions	25,720	10,834	695	-	37,249	652	529
- call options (purchase)	1,186	740	105	-	2,031	28	5
- put options (sale)	1,162	713	104	-	1,979	28	39
Related to prices of securities	109	724	1,573	-	2,406	26	3
- call options (purchase)	77	724	1,573	-	2,374	26	2
- forward contracts	32	-	-	-	32	-	1
Related to commodity prices	2,568	2,278	381	-	5,227	445	432
- forward contracts	233	1	-	-	234	5	3
- SWAP transactions	2,335	2,277	381	-	4,993	440	429
Total	72,973	106,278	238,149	57,368	474,768	16,197	20,956

Derivatives as at 31 December 2021	Base amount by maturities					Assets	Liabilities
	Up to 3 months	Over 3 months up to 1 year	Over 1 year to 5 years	Over 5 years	Total		
Related to interest rates	24,408	48,118	211,279	60,467	344,272	6,706	10,372
Fair value hedging instruments – swap transactions	102	-	2,004	287	2,393	24	91
Cash flow hedging instruments – swap transactions	885	6,032	39,031	7,380	53,328	30	3,513
Instruments carried as held for trading, including:	23,421	42,086	170,244	52,800	288,551	6,652	6,768
- forward contracts	4,397	2,035	-	-	6,432	7	13
- SWAP transactions	18,576	38,383	167,628	50,103	274,690	6,621	6,729
- call options (purchase)	268	999	1,638	413	3,318	16	20
- put options (sale)	-	325	896	2,284	3,505	6	4
- cap floor options	180	344	82	-	606	2	2
Related to exchange rates	46,466	17,073	9,470	-	73,009	797	727
Cash flow hedging instruments – swap transactions	6,804	2,999	-	-	9,803	63	31
Instruments carried as held for trading, including:	39,662	14,074	9,470	-	63,206	734	696
- forward contracts	11,844	7,588	6,343	-	25,775	361	393
- SWAP transactions	24,376	3,961	1,228	-	29,565	287	254
- call options (purchase)	1,797	1,296	953	-	4,046	83	24
- put options (sale)	1,645	1,229	946	-	3,820	3	25
Related to prices of securities	386	456	1,629	-	2,471	69	41
- call options (purchase)	366	456	1,629	-	2,451	69	41
- forward contracts	20	-	-	-	20	-	-
Related to commodity prices	1,975	347	871	-	3,193	756	740
- forward contracts	182	179	-	-	361	12	7
- SWAP transactions	1,583	168	871	-	2,622	729	717
- call options (purchase)	137	-	-	-	137	15	14
- put options (sale)	73	-	-	-	73	-	2
Total	73,235	65,994	223,249	60,467	422,945	8,328	11,880

37. Investment financial assets, including assets securing liabilities

37.1 Accounting policy

37.1.1. Recognition and classification

Financial assets are recognized in the statement of financial position at the moment when a PZU Group company becomes a party to a binding contract, under which it assumes risk and becomes a beneficiary of the benefits associated with the financial instrument. In the case of transactions concluded on an organized market, the purchase or sale of financial assets are recognized in the books on the date of the transaction.

The instrument is classified at the time of recognition of the instrument for the first time. The classification may only be changed in rare cases when the business model changes. The classification of financial assets depends on:

- the entity's business model for managing the financial assets and
- the contractual cash flow characteristics of the financial asset.

According to IFRS 9 financial assets are classified for valuation at:

- amortized cost;
- fair value through profit or loss;

- fair value through other comprehensive income.

Assets securing liabilities in respect of which the recipient has the right to sell these assets or exchange them for another security are presented in a separate line item in the statement of financial position.

Business models

Financial assets are managed in accordance with business models applied to enable the provision of information for management purposes. When analyzing business models, the PZU Group takes the following into account:

- how the performance of the business model and the financial assets held within that business model are evaluated and reported to the entity's key management personnel;
- the risks that affect the performance of the business model (and the financial assets held within that business model) and, in particular, the way in which those risks are managed.

Description of business models	Assets held in order to collect contractual cash flows	Assets held in order to collect contractual cash flows and cash flows from selling assets	Other financial assets
Risks under management	Long-term interest rate risk, credit risk.	Long-term interest rate risk, credit risk, long-term liquidity.	Short-term interest rate risk, currency risk, risk of changing prices of equities, indices, commodities and short-term liquidity management.
Terms and conditions of the sale of assets in the model	<ul style="list-style-type: none"> • transactions are rare • the value of assets sold compared to the total value of assets in the model is insignificant • the maturity of assets sold is close, while revenues are approximating the values of contractual cash flows remaining to be received if the assets was kept in the portfolio till initial maturity • deterioration of credit quality 	The permitted level of sales is higher than in the model of assets held to collect contractual cash flows, but much lower than for assets held for trading.	No restrictions on sales.

Financial assets held for trading and those that are held in a model managed at fair value have been classified as measured at fair value through profit or loss.

SPPI test

A special test is performed to evaluate whether contractual cash flows consist of *solely payments of principal and interest* (so called the SPPI test). The principal amount is defined as the fair value of the financial asset at initial recognition. Interest consists of consideration for the time value of money, for the credit risk associated with the principal amount outstanding during a particular period of time and for other basic lending risks and costs, as well as a profit margin.

The SPPI test examines whether a financial asset contains contractual terms that could change the timing or amounts of contractual cash flows so that the condition of obtaining solely payments of principal and interest would not be met. In making its evaluation, the PZU Group takes the following into account:

- conditional events that could change the amounts and timing of cash flows;
- factors modifying the interest rate;
- terms of prepayment and extension;
- terms limiting the right to obtain cash flows;
- factors that modify the time value of money, including periodic resets of the interest rate.

The SPPI test is carried out for financial assets classified into a business model whose objective is achieved by collecting contractual cash flows or a business model whose objective is achieved by both collecting contractual cash flows and selling.

The SPPI test is carried out:

- collectively – for homogeneous groups of standard products;
- on the single contract level – for non-standard products;
- on the ISIN code level – for debt securities.

If a financial asset contains terms causing modification of the value of money over time, the so-called verification benchmark test is carried out to determine the difference between undiscounted cash flows following from the contract and the undiscounted cash flows which would occur if the value of money over time was not modified (cash flow benchmark level). If the difference is material then the instrument does not pass the SPPI test and is measured at fair value through profit or loss.

37.1.2. Principles of measurement

Financial assets measured at amortized cost

A financial asset is classified as financial asset measured at amortized cost if both of the following conditions are met:

- the financial asset is held within a business model whose objective is achieved by holding financial assets in order to collect contractual cash flows;
- it passes the SPPI test – the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets measured at amortized cost include, among others:

- payment transferred for debt securities purchased under a contract under which the seller retained substantially all the risks and rewards of ownership of the securities (*buy-sell-back* and *reverse repo* transactions);
- debt securities;
- term deposits with credit institutions;
- loans granted.

Upon first recognition, financial assets measured at amortized cost are recognized at fair value plus transaction costs which can be allocated directly to the purchase of issue of such assets.

The results of the measurement at amortized cost are recognized in the profit and loss account in the “Interest income calculated using the effective interest rate” item.

Financial assets measured at fair value through other comprehensive income

Financial assets are measured at fair value through other comprehensive income if both of the following conditions are met:

- the financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets;
- it passes the SPPI test – the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Interest on debt instruments accrued using the effective interest rate are recognized in the profit and loss account in the “Interest income calculated using the effective interest rate” line item.

The rules of measurement to fair value are described in section 10.1. The effects of changes in the fair value are recognized in other comprehensive income until exclusion of the asset from the statement of financial position, when the cumulative effects of the measurement are moved to the profit and loss account, to the “Result on derecognition of financial instruments and investments” item.

The allowances for expected credit losses is recognized in other comprehensive income and on the other side in the profit and loss account in the “Movement in allowances for expected credit losses and impairment losses on financial instruments” item. The value of the recognized allowance does not reduce the carrying amount of the asset.

This category of financial assets also includes equity instruments, for which an irrevocable designation has been made to be measured at fair value, with subsequent changes in fair value recognized in other comprehensive income. The decision on such classification is made individually for each instrument. The portfolio of equity instruments carried at fair value through other comprehensive income includes assets considered material from the perspective of the PZU Group. If such assets are sold, the result on sales is transferred to supplementary capital.

Financial assets at fair value through profit or loss

This category includes other financial instruments that do not meet the conditions for being classified as financial assets measured at amortized cost or fair value through other comprehensive income. This pertains in particular to:

- financial assets designated for measurement at fair value through profit or loss;
- participation units that are not equity instruments and to which the SPPI condition does not apply, which solely payment of principal and interest;
- financial assets that have not passed the SPPI test – for which contractual terms result in cash flows not being solely payments of principal and interest;
- financial assets held within a business model other than the one whose objective is to hold financial assets in order to collect contractual cash flows or both to collect contractual cash flows and to sell financial assets;
- equity instruments that were not irrevocably designated as at fair value through other comprehensive income.

The rules of measurement to fair value are described in section 10.1. The effect of the change in measurement of financial instruments at fair value, including related interest income and changes in liabilities under investment contracts for the client’s account and risk are recognized under “Net movement in fair value of assets and liabilities measured at fair value” in the period to which they relate.

37.1.3. Derecognition from statement of financial position

Financial assets are derecognized from the consolidated statement of financial position when the contractual rights to receive cash flows of the asset expire or are transferred to another entity. The transfer also occurs if the contractual rights to receive the cash flows of the financial asset are retained, but a contractual obligation to transfer such cash flows to a non-PZU Group entity is accepted.

When a financial asset is transferred, the extent to which it retains the risks and rewards of ownership of the asset is evaluated.

- if substantially all the risks and rewards of ownership of the financial asset are transferred, the financial asset should be derecognized from the consolidated statement of financial position;
- if substantially all the risks and rewards of ownership of the financial asset are retained, the financial assets should continue to be recognized in the consolidated statement of financial position;
- if substantially all the risks and rewards of ownership of the financial asset are neither transferred nor retained, the entity determines whether it has retained control of the financial asset.

If control is retained then the financial asset is recognized in the consolidated statement of financial position up to the amount arising from permanent exposure; if there is no control then the financial asset is derecognized from the consolidated statement of financial position.

37.2 Quantitative data

Investment financial assets	31 December 2022				31 December 2021			
	at amortized cost	at fair value through other comprehensive income	at fair value through profit or loss	Total	at amortized cost	at fair value through other comprehensive income	at fair value through profit or loss	Total
Equity instruments	n/a	1,648	830	2,478	n/a	768	931	1,699
Participation units and investment certificates	n/a	n/a	4,876	4,876	n/a	n/a	5,816	5,816
Debt securities	91,605	38,077	2,417	132,099	74,052	44,128	2,418	120,598
Government securities	68,590	26,683	2,160	97,433	65,228	31,409	2,135	98,772
Domestic	62,918	23,973	2,023	88,914	64,958	28,664	1,952	95,574
Fixed rate	58,616	14,984	1,630	75,230	59,532	21,233	1,511	82,276
Floating rate	4,302	8,989	393	13,684	5,426	7,431	441	13,298
Foreign	5,672	2,710	137	8,519	270	2,745	183	3,198
Fixed rate	5,672	2,710	137	8,519	270	2,745	180	3,195
Floating rate	-	-	-	-	-	-	3	3
Other	23,015	11,394	257	34,666	8,824	12,719	283	21,826
Fixed rate	16,418	7,334	63	23,815	2,844	7,424	37	10,305
Floating rate	6,597	4,060	194	10,851	5,980	5,295	246	11,521
Other, including:	14,408	-	-	14,408	8,841	-	-	8,841
Buy-sell-back transactions	7,071	-	-	7,071	3,871	-	-	3,871
Term deposits with credit institutions	3,068	-	-	3,068	1,384	-	-	1,384
Loans	4,269	-	-	4,269	3,586	-	-	3,586
Investment financial assets, total	106,013	39,725	8,123	153,861	82,893	44,896	9,165	136,954

Assets securing liabilities	31 December 2022				31 December 2021			
	at amortized cost	at fair value through other comprehensive income	at fair value through profit or loss	Total	at amortized cost	at fair value through other comprehensive income	at fair value through profit or loss	Total
Debt securities	41	879	52	972	131	911	48	1,090
Government securities	41	879	52	972	131	911	48	1,090
Domestic	41	879	52	972	131	911	48	1,090
Fixed rate	41	791	51	883	131	911	2	1,044
Floating rate	-	88	1	89	-	-	46	46
Buy-sell-back transactions	-	-	-	-	246	-	-	246
Assets securing liabilities, total	41	879	52	972	377	911	48	1,336

Equity instruments measured at fair value through other comprehensive income	31 December 2022		31 December 2021	
	Fair value	Dividends recognized in the period	Fair value	Dividends recognized in the period
PKN Orlen	910	-	-	-
Grupa Azoty SA	284	-	243	-
Biuro Informacji Kredytowej SA	270	24	323	24
PSP sp. z o.o.	79	-	94	-
Polimex-Mostostal SA	49	-	42	-
Krajowa Izba Rozliczeniowa SA	15	2	16	1
Webuild SpA	10	-	15	-
Other	31	1	35	1
Equity instruments measured at fair value through other comprehensive income, total	1,648	27	768	26

On 29 September 2022, PZU acquired from the State Treasury 14,161,080 shares of PKN Orlen, representing 2.26% of PKN Orlen's share capital and the total number of votes at the Shareholder Meeting of PKN Orlen, for a total of PLN 756 million and classified them as shares measured at fair value through other comprehensive income. The transaction was in line with the 2021-2023 investment strategy for PZU and PZU Life's own risk portfolio. The purpose of the transaction was to achieve a positive result from the transaction. Depending on the market situation, PZU will consider selling all or part of its stake in PKN Orlen in subsequent quarters.

38. Receivables

Receivables - carrying amount	31 December 2022	31 December 2021
Receivables on direct insurance, including:	3,310	2,694
- receivables from policyholders	3,183	2,604
- receivables from insurance intermediaries	120	89
- other receivables	7	1
Reinsurance receivables	54	63
Other receivables	9,278	6,661
- receivables from disposal of securities and margins ¹⁾	6,401	4,516
- receivables on account of payment card settlements	1,358	931
- trade receivables	507	310
- receivables from the state budget, other than corporate income tax receivables	118	98
- receivables by virtue of commissions concerning off-balance sheet products	165	170
- prevention settlements	52	33
- receivables from direct claims handling on behalf of other insurance undertakings	16	12
- receivables for acting as an emergency adjuster	4	8
- receivables on account of Corporate Income Tax	305	223
- receivables from security and bid deposits	64	54
- interbank and interbranch receivables	14	16
- other	274	290
Total receivables	12,642	9,418

¹⁾ This line item presents receivables associated with executed but outstanding transactions on financial instruments.

As at 31 December 2022 and 31 December 2021, the fair value of receivables did not differ significantly from their carrying amount, primarily due to their short-term nature and the policy of recognizing impairment losses.

Receivables by contractual maturity	31 December 2022	31 December 2021
Up to 1 year ¹⁾	12,126	9,191
1 to 5 years	449	150
Over 5 years	67	77
Total receivables by contractual maturity	12,642	9,418

¹⁾ Including past due receivables.

39. Expected credit losses and impairment of financial assets

39.1 Accounting policies and significant estimates and judgments

An assessment is performed at the end of each reporting period whether there is any objective evidence that a financial asset or group of financial assets is impaired.

If there is objective evidence of impairment arising from loss events that occurred after the initial recognition of financial assets and causing a decrease in expected future cash flows then appropriate impairment losses are recognized against costs of the current period.

Objective evidence of impairment includes information about the following loss events:

- significant financial difficulty of the issuer or obligor;
- a breach of contract, such as a default or delinquency in interest or principal payments;
- the lender, for economic or legal reasons relating to the borrower's financial difficulty, granting to the borrower a concession that the lender would not otherwise consider (forbearance);
- it becoming probable that the borrower will enter liquidation, bankruptcy or other financial reorganization;
- the disappearance of an active market for that financial asset because of the issuer's financial difficulties;
- observable data indicating that there is a measurable decrease in the estimated future cash flows from a group of financial assets since the initial recognition of those assets, although the decrease cannot yet be identified with the individual financial assets in the group, including:
 - adverse changes in the payment status of borrowers in the group (e.g. an increased number of delayed payments or
 - adverse changes in the economic condition in a specific industry, region, etc. contributing to the deterioration of the debtors' capacity for repayment;
- adverse changes in the technology, market, economic, legal or other environment in which the issuer of an equity instrument operates indicating that costs of investment in that equity instrument may not be recovered.

In the case of assets which are not measured at fair value through profit or loss, the PZU Group recognizes the expected credit loss – ECL. This applies to:

- loan receivables from clients;
- loans;
- debt securities;
- buy-sell-back transactions;
- lease receivables;
- term deposits with credit institutions;
- lending commitments and issued financial guarantees.

For debt assets measured at amortized cost and at fair value through other comprehensive income, impairment is measured as:

- Lifetime ECL – expected credit losses that result from all possible default events over the expected life of a financial instrument;
- 12-month ECL – the portion of lifetime expected credit losses that represent the expected credit losses that result from default events on a financial instrument that are possible within the 12 months after the reporting date.

The PZU Group measures allowances for expected credit losses at an amount equal to lifetime ECL, except for the following instruments, for which 12-month ECL is recognized instead:

- financial instruments for which credit risk has not increased significantly since initial recognition;
- debt securities that have low credit risk at the reporting date. Low credit risk debt securities are those securities that have been assigned an external investment-grade rating and
- exposures to banks and the NBP.

The charge is calculated in three categories:

- basket 1 – portfolio with low credit risk – 12-month ECL is recognized;
- basket 2 – portfolio in which a significant increase of credit risk occurs – lifetime ECL is recognized;
- basket 3 – impaired portfolio – lifetime ECL is recognized.

The method of calculation of the allowance for expected credit losses also impacts the method of recognizing interest income – for baskets 1 and 2 interest income is determined on the basis of gross exposures, and in basket 3 on the net exposure basis.

The PZU Group recognizes the cumulative changes in lifetime ECL since initial recognition as a loss allowance for ECL from purchased or granted credit-impaired financial assets (POCI).

Changes in the value of allowances for expected credit losses is recognized in the consolidated profit and loss account in the “Movement in allowances for expected credit losses and impairment losses on financial instruments” item.

The ECL classification and estimation effected by the PZU Group in terms of loan receivables from clients is in compliance with the requirements of:

- IFRS 9 Financial Instruments and IAS 37 Provisions, contingent liabilities and contingent assets;
- Recommendation R of the Polish Financial Supervision Authority on the principles of credit exposure classification, estimation and recognition of expected credit losses and credit risk management, issued in April 2021;
- Article 178 of the CRR, guidelines EBA/GL/2016/07 on the application of the definition of default and the Regulation of the Minister of Finance, Investments and Development of 3 October 2019 on the materiality level of overdue credit obligations and EU Regulation No. 2021/451, Annex V – in accordance with which the definition of default is used at the level of:
 - distinct credit instruments – in the case of retail exposures (including the infection in the case of arrears material for the whole relationship);
 - debtor – for commercial exposures.

Provisions for legal risk pertaining to FX mortgage loans in Swiss francs

In connection with the CJEU ruling of 3 October 2019, the PZU Group identifies legal risk pertaining to FX mortgage loans in Swiss francs.

For exposures outstanding as at 31 December 2022, the PZU Group considers that the legal risk impacts the expected cash flows from the credit exposure and that the level of the expected credit loss, as defined in IFRS 9.

Accordingly, the credit risk of the Swiss franc mortgage portfolio is evaluated in compliance with the legal risk associated with this portfolio. Because of the currently unfavorable case-law resulting in a higher expected number of lawsuits and a significant probability of losing the case as of 31 December 2022, the PZU Group assumed that loans for which the client has filed a lawsuit and loans for which the probability of litigation with the client was estimated at more than 60% were classified into Basket 3. The remaining loans that do not meet these criteria are classified into Basket 2.

Consequently, the PZU Group recognizes the amount of the provision pertaining to credit exposures outstanding as at 31 December 2022 (comprising existing and possible future statements of claim) in the impairment losses for loan receivables from clients and, accordingly, in the “movement in allowances for expected credit losses and impairment losses”.

Additional information on estimation of the provisions associated with the legal risk pertaining to foreign currency mortgage loans in Swill francs is presented in section 48.3.

Rules for estimating expected credit losses

The process of estimating expected credit losses requires the use of significant estimates and judgments, including assumptions about macroeconomic forecasts and possible scenarios for how these forecasts will evolve in the future, expert adjustments for industries for which the PZU Group identifies increased risk, and rules for identifying significant increases in credit risk.

In 2022, the PZU Group, for clients in certain portfolios and industries for which increased risks were identified, increased PD levels by 100%, resulting in an increase in expected credit losses of PLN 197 million. The impact was included for loan receivables from clients with a gross carrying amount of PLN 15,832 million.

In addition, changes were made to the rules for calculating allowances for certain portfolios of loan receivables from clients. The changes included a different approach to customer segmentation, how to determine PD for certain portfolios and modifications to the transfer logic model.

Determination of impairment losses in compliance with IFRS 9 requires the formulation of forecasts of the evolution of the key credit risk parameters. For the calculation of allowances, the PZU Group takes into account various scenarios for the assessment of the portfolio quality, reflecting the current and expected changes in the economic situation and the uncertainty factors.

The PZU Group calculates its expected credit losses in accordance with various scenarios for the future macroeconomic situation.

Estimated movement in the impairment of loan receivables from clients due to a change in PD or LGD affecting the portfolio by +/- 10%	31 December 2022		31 December 2021	
	-10%	+10%	-10%	+10%
Basket 1	298	(323)	279	(300)
Basket 2	280	(295)	418	(386)

Key statutory client support tools available due to the macroeconomic situation, among others, include the Borrower Support Fund, moratoria available to clients who have lost their source of income, and memorandum periods. Exposures covered by the Borrower Support Fund or moratoria for clients who have lost their source of income are classified into forbearance and, consequently, into Basket 2 (unless they meet the grounds for impairment that would result in classification into Basket 3).

Mortgage exposures subject to payment moratoria are subject to general classification rules, where the fact of using moratoria does not meet the conditions of a concession offered due to deteriorated financial situation, as it is not a criterion for using the concession. During periods of suspended maturity, arrears/overdue accruals are suspended, returning to continued accruals on the date the suspension period ends.

39.1.1. Calculation of PD and LGD parameters

PZU Group uses the PD and LGD parameters to estimate allowances for expected credit losses.

For issuers and exposures that are externally rated, PDs are assigned on the basis of the average market default rate for the rating classes concerned. First, the internal rating of an entity/issue is determined in accordance with the internal rating methodology. The tables published by external rating agencies are used to estimate average PD.

The Moody's RiskCalc model or internal rating models and methodologies are used for issuers of corporate bonds and corporate loans, for which no external rating is available. The EDF parameter (expected default frequency) is used to estimate PD in case of the RiskCalc model, and in other cases estimates based on internal methodologies and models. When estimating lifetime PD for exposures with maturity above 5 years (in the RiskCalc model, the forward EDF curve refers to a 5-year period), it is assumed that in subsequent years PD is constant and corresponds to the value determined by the model for the 5th year.

For loan receivables from clients PD is estimated based on internal models depending on the segment group, individual credit quality of the customer, and the exposure lifecycle phase.

For issuers of corporate bonds and corporate loans, 12-month LGD is determined based on the Moody's RiskCalc model (LGD module). When estimating lifetime LGD for exposures with a maturity above 5 years, it is assumed that in subsequent years LGD is constant and corresponds to the value determined by the module for the 5th year.

If a credit rating agency has allocated a separate recovery rate to the instrument concerned then this parameter is used. For a given RR parameter (recovery rate), the following formula is used: $LGD = 1 - RR$.

Where the RiskCalc model cannot be used to estimate LGD levels and where the instrument does not have an LGD awarded by an external rating agency, then the average RR should be used, based on market data (properly differentiating the corporate and sovereign debt classes) supplied by external rating agencies using the following formula: $LGD = 1 - RR$. When lifetime LGD must be estimated, the value of this parameter is assumed to be constant. The degree of subordination of debt is taken into account when selecting data for LGD.

39.1.2. Change in credit risk since initial recognition

At each reporting date, the PZU Group shall assess whether the credit risk on a financial instrument has increased significantly since initial recognition. When making the assessment, the PZU Group should use the change in the risk of a default occurring over the expected life of the financial instrument instead of the change in the amount of expected credit losses. To make that assessment, the Group compares the PD for the financial instrument as at the reporting date with the PD as at the date of initial recognition and consider reasonable and supportable information, that is available without undue cost or effort.

If a financial instrument is determined to have low credit risk (i.e. has an external investment-grade rating) both at initial recognition and as at the reporting date, it is assumed that the credit risk associated with this instrument has not increased significantly. This pertains in particular to treasury bonds:

The PZU Group assesses whether the credit risk of financial instruments has increased significantly by comparing the PD parameter for the rest of its lifetime on the reporting date with the PD parameter for the rest of its lifetime estimated at the time of initial recognition.

The PZU Group regularly monitors the effectiveness of the criteria used to identify a significant increase in credit risk, in order to confirm that:

- the criteria allow for identification of a significant increase in credit risk before the impairment of the exposure occurs;
- the average time between identifying a significant increase in credit risk and impairment is reasonable;
- there is no unreasonable volatility of allowances for expected credit losses resulting from transfers between 12-month ECL and lifetime ECL.

In the case of loan receivables from clients, the identification of a significant credit risk growth is based on an analysis of qualitative (such as the occurrence of a 30-day past due period, customer's classification in the watch list, forbearance) and quantitative premises.

39.1.3. Identified impaired financial assets (basket 3)

The PZU Group classifies financial assets to basket 3 when the premises for impairment losses such as, among others, delay in payment of more than 90 days, are satisfied with simultaneous satisfaction of the unpaid amount materiality threshold, exposure being included in the restructuring process or occurrence of another qualitative premise of impairment losses.

39.1.4. Financial assets impaired due to credit risk (POCI)

Acquired or granted financial assets impaired due to credit risk (POCI) is assets with impairment losses determined at the time of the initial recognition. The POCI classification does not change over the life of the instrument until derecognition.

POCI assets arise from:

- acquisition of a contract satisfying the definition of POCI (e.g. on combination with another entity or purchase of a portfolio);
- conclusion of a POCI contract on the initial granting (e.g. granting of a loan to a client in a poor financial condition);
- modification of a contract (e.g. in the course of restructuring) resulting in excluding an asset from the statement of financial position and recognizing a new asset satisfying the definition of POCI.

As at the initial recognition, POCI assets are recognized at the fair value, without recognizing allowances for expected credit losses.

39.1.5. Receivables from policyholders

An aggregate assessment of the impairment is carried out and the impairment losses due to impairment are estimated for receivables from policyholders which do not contain a significant financing component.

Receivables are grouped by similar credit risk characteristics. For receivables before maturity, the value of the receivable that is likely to become due is determined based on a historical analysis of the percentage of the ratio of receivables that are not paid

before maturity. The amount of write-off for expected credit losses is determined on the basis of the uncollectibility ratio for matured receivables with the shortest past due period.

For matured receivables, an age structure is prepared, depending on the past due period. For this group, the value of the allowance for expected credit losses is calculated in separate ranges of past due periods, based on the uncollectibility ratios determined through historical analysis.

39.2 Quantitative data

Loan receivables from clients measured at amortized cost	1 January – 31 December 2022					1 January – 31 December 2021 (restated)				
	Basket 1	Basket 2	Basket 3	POCI	Total	Basket 1	Basket 2	Basket 3	POCI	Total
Gross carrying amount										
Beginning of the period	182,578	28,470	11,239	5,307	227,594	163,118	28,238	12,044	5,473	208,873
Recognition of instruments at the time of acquisition, creation, granting	55,905	-	-	176	56,081	58,460	-	-	8	58,468
Changes attributable to valuation, sale, exclusion or expiration of the instrument	(47,257)	(4,277)	(1,887)	(624)	(54,045)	(40,618)	(4,955)	(2,570)	(1,132)	(49,275)
Change attributable to modification of cash flows concerning the given instrument	(4)	(1)	-	-	(5)	(2)	(1)	-	-	(3)
Assets from the statement of financial position	-	-	(2,354)	(31)	(2,385)	-	-	(1,678)	(57)	(1,735)
Reclassification to basket 1	11,229	(10,965)	(264)	-	-	7,958	(7,665)	(293)	-	-
Reclassification to basket 2	(13,819)	14,206	(387)	-	-	(15,055)	15,127	(72)	-	-
Reclassification to basket 3	(2,303)	(3,221)	5,524	-	-	(1,374)	(2,167)	3,541	-	-
Change in the composition of the Group	-	-	-	-	-	11,131	-	-	1,058	12,189
Other changes, including foreign exchange differences	(971)	(77)	296	326	(426)	(1,040)	(107)	267	(43)	(923)
End of the period	185,358	24,135	12,167	5,154	226,814	182,578	28,470	11,239	5,307	227,594
Expected credit losses										
Beginning of the period	(1,067)	(1,798)	(6,321)	(3,806)	(12,992)	(909)	(1,876)	(6,413)	(4,048)	(13,246)
Establishment of allowances for newly acquired, created, granted instruments	(666)	-	-	(47)	(713)	(839)	-	-	(3)	(842)
Changes attributable to valuation, credit risk level, sale, exclusion or expiration of the instrument, excluding reclassification	469	(500)	(3,147)	750	(2,428)	927	(395)	(1,202)	306	(364)
Assets from the statement of financial position	-	-	2,354	31	2,385	-	-	1,678	57	1,735
Reclassification to basket 1	(599)	481	118	-	-	(495)	360	135	-	-
Reclassification to basket 2	148	(327)	179	-	-	157	(161)	4	-	-
Reclassification to basket 3	233	420	(653)	-	-	111	372	(483)	-	-
Other changes, including foreign exchange differences	(136)	(319)	160	(516)	(811)	(19)	(98)	(40)	(118)	(275)
End of the period	(1,618)	(2,043)	(7,310)	(3,588)	(14,559)	(1,067)	(1,798)	(6,321)	(3,806)	(12,992)
Net carrying amount at the end of the period	183,740	22,092	4,857	1,566	212,255	181,511	26,672	4,918	1,501	214,602

In connection with the entry into force of KNF's "Recommendation R on principles for the classification of credit exposures, estimation and recognition of expected credit losses and management of credit risk" as of 1 January 2022, the PZU Group modified the criteria for identifying POCI assets, resulting in the identification of new POCI assets and as a result restating of comparative data in terms of the gross value of loans and advances to clients measured at amortized cost and the value of the allowance for expected credit losses on these loans (presentation changes between Basket 3 and POCI assets). The change had no effect on the total net amount of loan receivables from clients.

Loan receivables from clients measured at fair value through other comprehensive income	1 January – 31 December 2022					1 January – 31 December 2021				
	Basket 1	Basket 2	Basket 3	POCI	Total	Basket 1	Basket 2	Basket 3	POCI	Total
Carrying amount										
Beginning of the period	115	131	-	-	246	720	755	-	-	1,475
Recognition of instruments at the time of acquisition, creation, granting	151	-	-	-	151	-	-	-	-	-
Change in measurement	2	-	-	-	2	-	-	-	-	-
Changes attributable to sale, exclusion or expiration of the instrument	(8)	(132)	-	-	(140)	(601)	(622)	-	-	(1,223)
Other changes	(6)	1	-	-	(5)	(4)	(2)	-	-	(6)
End of the period	254	-	-	-	254	115	131	-	-	246
Expected credit losses										
Beginning of the period	(2)	(2)	-	-	(4)	(4)	(22)	-	-	(26)
Establishment of allowances for newly acquired, created, granted instruments	(2)	-	-	-	(2)	-	-	-	-	-
Changes attributable to valuation or credit risk level (excluding reclassification)	-	-	-	-	-	(2)	2	-	-	-
Changes attributable to sale, exclusion or expiration of the instrument	-	2	-	-	2	4	19	-	-	23
Other changes	-	-	-	-	-	-	(1)	-	-	(1)
End of the period	(4)	-	-	-	(4)	(2)	(2)	-	-	(4)

The allowance pertaining to loan receivables from clients measured at fair value through other comprehensive income is recognized in revaluation reserve and it does not lower the carrying amount of assets.

Debt investment financial assets measured at amortized cost	1 January – 31 December 2022					1 January – 31 December 2021				
	Basket 1	Basket 2	Basket 3	POCI	Total	Basket 1	Basket 2	Basket 3	POCI	Total
Gross carrying amount										
Beginning of the period	73,897	354	35	39	74,325	57,850	73	34	-	57,957
Recognition of instruments at the time of acquisition, creation, granting	35,051	-	-	-	35,051	26,513	-	-	-	26,513
Change in measurement	1,032	1	-	-	1,033	802	-	1	-	803
Changes attributable to sale, exclusion or expiration of the instrument	(19,088)	(264)	-	-	(19,352)	(11,476)	(8)	-	-	(11,484)
Assets from the statement of financial position	-	-	(13)	-	(13)	-	-	(1)	-	(1)
Reclassification to basket 1	80	(80)	-	-	-	-	-	-	-	-
Reclassification to basket 2	(238)	238	-	-	-	(288)	288	-	-	-
Change in the composition of the Group	-	-	-	-	-	15	-	-	40	55
Other changes, including foreign exchange differences	781	(13)	2	24	794	481	1	1	(1)	482
End of the period	91,515	236	24	63	91,838	73,897	354	35	39	74,325
Expected credit losses										
Beginning of the period	(69)	(8)	(35)	(30)	(142)	(50)	(2)	(34)	-	(86)
Establishment of allowances for newly acquired, created, granted instruments	(21)	-	-	-	(21)	(39)	-	-	-	(39)
Changes attributable to valuation or credit risk level (excluding reclassification)	(28)	1	-	-	(27)	9	1	-	-	10
Changes attributable to sale, exclusion or expiration of the instrument	3	5	-	-	8	4	-	-	-	4
Assets from the statement of financial position	-	-	13	-	13	-	-	1	-	1
Reclassification to basket 1	-	-	-	-	-	-	-	-	-	-
Reclassification to basket 2	28	(28)	-	-	-	7	(7)	-	-	-
Other changes, including foreign exchange differences	-	2	(2)	(23)	(23)	-	-	(2)	(30)	(32)
End of the period	(87)	(28)	(24)	(53)	(192)	(69)	(8)	(35)	(30)	(142)
Net carrying amount at the end of the period	91,428	208	-	10	91,646	73,828	346	-	9	74,183

Debt investment financial assets measured at fair value through other comprehensive income	1 January – 31 December 2022					1 January – 31 December 2021				
	Basket 1	Basket 2	Basket 3	POCI	Total	Basket 1	Basket 2	Basket 3	POCI	Total
Carrying amount										
Beginning of the period	44,788	251	-	-	45,039	63,387	256	-	-	63,643
Recognition of instruments at the time of acquisition, creation, granting	213,353	-	-	-	213,353	297,955	4	-	-	297,959
Change in measurement	(1,313)	17	-	-	(1,296)	(445)	(10)	-	-	(455)
Changes attributable to sale, exclusion or expiration of the instrument	(219,013)	(45)	-	-	(219,058)	(315,883)	(93)	-	-	(315,976)
Reclassification to basket 1	26	(26)	-	-	-	-	-	-	-	-
Reclassification to basket 2	(36)	36	-	-	-	(94)	94	-	-	-
Change in the composition of the Group	-	-	-	-	-	313	-	-	-	313
Other changes, including foreign exchange differences	914	4	-	-	918	(445)	-	-	-	(445)
End of the period	38,719	237	-	-	38,956	44,788	251	-	-	45,039
Expected credit losses										
Beginning of the period	(54)	(26)	-	-	(80)	(68)	(13)	-	-	(81)
Establishment of allowances for newly acquired, created, granted instruments	(2)	-	-	-	(2)	(19)	-	-	-	(19)
Changes attributable to valuation or credit risk level (excluding reclassification)	1	7	-	-	8	12	(12)	-	-	-
Changes attributable to sale, exclusion or expiration of the instrument	8	-	-	-	8	20	-	-	-	20
Reclassification to basket 1	-	-	-	-	-	-	-	-	-	-
Reclassification to basket 2	2	(2)	-	-	-	1	(1)	-	-	-
End of the period	(45)	(21)	-	-	(66)	(54)	(26)	-	-	(80)

The allowance pertaining to debt investment financial assets measured at fair value through other comprehensive income is recognized in revaluation reserve and it does not lower the carrying amount of assets.

The value of allowances for expected credit losses on buy-sell-back transactions is zero.

Term deposits with credit institutions	1 January – 31 December 2022					1 January – 31 December 2021				
	Basket 1	Basket 2	Basket 3	POCI	Total	Basket 1	Basket 2	Basket 3	POCI	Total
Gross carrying amount										
Beginning of the period	1,385	-	-	-	1,385	953	-	-	-	953
Recognition of instruments at the time of acquisition, creation, granting	35,834	-	-	-	35,834	33,091	-	-	-	33,091
Change in measurement	7	1	-	-	8	2	-	-	-	2
Changes attributable to sale, exclusion or expiration of the instrument	(34,057)	(71)	-	-	(34,128)	(32,810)	-	-	-	(32,810)
Reclassification to basket 2	(238)	238	-	-	-	-	-	-	-	-
Reclassification to basket 3	(128)	(9)	137	-	-	-	-	-	-	-
Change in the composition of the Group	-	-	-	-	-	161	-	-	-	161
Other changes, including foreign exchange differences	11	(19)	(1)	-	(9)	(12)	-	-	-	(12)
End of the period	2,814	140	136	-	3,090	1,385	-	-	-	1,385
Expected credit losses										
Beginning of the period	(1)	-	-	-	(1)	(1)	-	-	-	(1)
Establishment of allowances for newly acquired, created, granted instruments	(17)	-	-	-	(17)	(2)	-	-	-	(2)
Changes attributable to valuation or credit risk level (excluding reclassification)	(20)	12	(2)	-	(10)	(4)	-	-	-	(4)
Changes attributable to sale, exclusion or expiration of the instrument	1	3	-	-	4	-	-	-	-	-
Reclassification to basket 2	37	(37)	-	-	-	-	-	-	-	-
Reclassification to basket 3	1	9	(10)	-	-	-	-	-	-	-
Other changes	(2)	2	2	-	2	6	-	-	-	6
End of the period	(1)	(11)	(10)	-	(22)	(1)	-	-	-	(1)
Net carrying amount at the end of the period	2,813	129	126	-	3,068	1,384	-	-	-	1,384

Loans	1 January – 31 December 2022					1 January – 31 December 2021				
	Basket 1	Basket 2	Basket 3	POCI	Total	Basket 1	Basket 2	Basket 3	POCI	Total
Gross carrying amount										
Beginning of the period	3,522	75	-	-	3,597	3,318	79	-	-	3,397
Recognition of instruments at the time of acquisition, creation, granting	1,068	-	-	-	1,068	1,418	-	-	-	1,418
Change in measurement	72	3	-	-	75	(10)	2	-	-	(8)
Changes attributable to sale, exclusion or expiration of the instrument	(436)	(4)	-	-	(440)	(1,204)	(6)	-	-	(1,210)
Reclassification to basket 1	74	(74)	-	-	-	-	-	-	-	-
End of the period	4,300	-	-	-	4,300	3,522	75	-	-	3,597
Expected credit losses										
Beginning of the period	(5)	(6)	-	-	(11)	(7)	(6)	-	-	(13)
Establishment of allowances for newly acquired, created, granted instruments	(8)	-	-	-	(8)	(1)	-	-	-	(1)
Changes attributable to valuation or credit risk level (excluding reclassification)	(19)	5	-	-	(14)	1	-	-	-	1
Changes attributable to sale, exclusion or expiration of the instrument	2	-	-	-	2	2	-	-	-	2
Reclassification to basket 1	(1)	1	-	-	-	-	-	-	-	-
End of the period	(31)	-	-	-	(31)	(5)	(6)	-	-	(11)
Net carrying amount at the end of the period	4,269	-	-	-	4,269	3,517	69	-	-	3,586

Receivables	1 January – 31 December 2022	1 January – 31 December 2021
Gross carrying amount		
Beginning of the period	10,575	7,333
Changes in the period	3,243	3,242
End of the period	13,818	10,575
Expected credit losses		
Beginning of the period	(1,157)	(1,087)
Changes in the period	(19)	(70)
End of the period	(1,176)	(1,157)
Net carrying amount at the end of the period	12,642	9,418

40. Cash and cash equivalents

40.1 Accounting policy

Cash and cash equivalents include, among others cash at hand and cash in current accounts in banks, including on the NBP account.

Cash is recognized at nominal value.

40.2 Restricted cash

The consolidated cash flow statement carries the cash of insurance companies' Preventive Funds and VAT split-payments as restricted cash. Pursuant to the Polish regulations and the internal regulations of the PZU Group companies that are based on them, this cash may be spent only for specific purposes as part of preventive activities or VAT split-payments.

40.3 Quantitative data

Cash and cash equivalents in the statement of financial position and cash flow statement	31 December 2022	31 December 2021
Balances with the central bank ¹⁾	8,922	2,480
Cash at bank and in hand	7,037	6,967
Other	1	-
Total cash and cash equivalents in the statement of financial position and cash flow statement	15,960	9,447

¹⁾ This amount pertains to the required reserve that Pekao and Alior Bank maintain on their current accounts with the National Bank of Poland, at levels consistent with decisions of the Monetary Policy Council.

41. Equity attributable to the equity holders of the parent company

41.1 Share capital

Share capital is recognized at the amount stated in the parent company's articles of association and registered in the National Court Register.

All the Shares have been fully paid for.

As at 31 December 2022 and 31 December 2021

Series/ issue	Type of shares	Type of preference	Type of limitation on rights to shares	Number of shares	Value of series/issue at par value (PLN)	Capital coverage	Date of registration	Right to dividends (from a date)
A	bearer	none	none	604,463,200	60,446,320	cash	23.01.1997	27.12.1991
B	bearer	none	none	259,059,800	25,905,980	in-kind contribution	31.03.1999	01.01.1999
Total number of shares				863,523,000				
Total share capital					86,352,300			

The structure of PZU's shareholders and information on transactions with material blocks of PZU shares are presented in section 3.

41.2 Distribution of the parent company's profit

As regards distribution of profit for 2021 and previous years, only the profit captured in the PZU standalone financial statements prepared in accordance with PAS is subject to distribution.

41.2.1.1. Distribution of the 2021 profit

On 29 June 2022, the PZU Ordinary Shareholder Meeting distributed PZU's net profit for the year ended 31 December 2021 in the amount of PLN 2,028 million, increased by PLN 950 million moved from supplementary capital created from the net profit for the year ended 31 December 2020, i.e. in total PLN 2,978 million, as follows:

- designate PLN 1,675 million (i.e. PLN 1.94 per share) as a dividend payout;
- designate PLN 1,296 million for supplementary capital;
- designate PLN 7 million for the Company Social Benefit Fund.

The record date was set at 29 September 2022 and the dividend payout date was set for 20 October 2022.

The accepted profit distribution is consistent with the PZU Group's Capital and Dividend Policy for 2021-2024, as adopted on 24 March 2021, and takes into account the recommendations contained in the Polish Financial Supervision Authority's (KNF) stance on the dividend policy in 2022 issued on 9 December 2021.

41.2.1.2. Distribution of the 2022 profit

As at the date of signing these consolidated financial statements, the PZU Management Board has not adopted a resolution in the matter of the proposed distribution of the 2022 profit.

41.3 Other capital

41.3.1. Accounting policy

Treasury shares purchased and retained by consolidated PZU Group entities are shown at purchase price.

The "Supplementary capital" item includes:

- the effect of distribution of profit, in accordance with the legal regulations in effect in the country of the company's domicile (in Poland under the Commercial Company Code) and the articles of association of PZU Group companies;
- the capital created upon the sale of investment property previously transferred from own property, according to the rules described in section 33;
- the difference between the change in value of non-controlling interest and fair value of payment in transactions with non-controlling interests.

Results of the following are posted in the "Revaluation reserve" item:

- revaluation of financial assets classified as assets measured at fair value through other comprehensive income;
- revaluation of property to its fair value on the date when it is classified from own property to investment property;
- measurement of hedging instruments, in respect to the part constituting effective cash flow hedge;

after taking into account the corresponding change in deferred tax assets or liabilities.

The item "Actuarial gains and losses related to provisions for employee benefits" includes amounts resulting from increases or decreases in the present value of the defined benefit obligation because of changes in actuarial assumptions and experience adjustments – demographic (e.g. mortality, employee turnover) and financial (e.g. discount rate or projected salary growth rate).

"Foreign exchange translation differences" include differences resulting from translation of financial data of foreign entities using exchange rates, in accordance with the rules described in section 6.6.

41.3.2. Quantitative data

Other capital	31 December 2022	31 December 2021
Treasury shares	(4)	(5)
Supplementary capital	15,315	14,816
Share premium account	538	538
Distribution of results of PZU Group companies	14,709	14,220
Other	68	58
Revaluation reserve	(2,455)	(1,140)
Valuation of debt instruments measured at fair value through other comprehensive income	(1,525)	(305)
Valuation of equity instruments measured at fair value through other comprehensive income	(51)	(223)
Reclassification of real property from property, plant and equipment to investment property	58	66
Cash flow hedging	(937)	(678)
Other reserve capital	1,721	600
Actuarial gains and losses related to provisions for employee benefits	(6)	3
Foreign exchange translation differences	92	69
LD	114	90
Balta	36	29
PZU Ukraine	(51)	(45)
PZU Ukraine Life	(15)	(12)
Other	8	7
Total other capital	14,663	14,343

42. Technical provisions

42.1 Accounting policy

42.1.1. Non-life insurance

Provision for unearned premiums and provision for unexpired risk

Provision for unearned premiums is calculated at the end of each reporting period on a case-by-case basis, with the precision of one day.

Provision for unexpired risk is recognized as an addition to the provision for unearned premiums to cover future claims, benefits and expenses, including deferred acquisition expenses, in relation to insurance agreements that do not expire on the last day of the reporting period. The provision for unexpired risk is calculated for insurance groups at the end of each reporting period.

The total amount of the provision for unexpired risk is determined for those insurance groups where the current year loss and cost ratio is greater than 100%, as a difference between the product of the provision for unearned premiums and the loss and cost ratio of the current financial year and the provision for unearned premiums for the same insurance period.

Provision for outstanding claims and benefits

Provision for outstanding claims and benefits includes:

- provision for outstanding claims and benefits for losses and accidents incurred and reported (RBNP) by the end of the reporting period;
- provision for losses and accidents incurred but not reported (IBNR) by the end of the reporting period;

- provision for claims handling expenses.

The RBNP provision is calculated on a case-by-case basis by claims handling units or, if available information is not sufficient to assess the provision amount, at the average claim amount determined using the actuarial method. The provision recognized takes into account the insured's deductible, the expected increase in prices of goods and repair services and may not be greater than the sum insured or indemnity. The provision is updated as soon as information influencing its amount is available, on a case-by-case assessment or estimation of losses and claims.

The IBNR provision is recognized for losses and claims that are not reported by the balance sheet date, as at which the provision is recognized. IBNR is calculated using the loss triangle analysis method: a generalized Chain Ladder method and for a small number or value of losses the Bornhuetter-Ferguson method, broken down by the years in which the losses occurred. The calculations are based on the annual triangles of claims paid and claims reported. For third party liability insurance for owners of motor vehicles for the mass client the IBNR provision is determined on the basis of multiple simulations of the claim development model (the so-called bootstrap) to obtain an estimation of the distribution of future claims and benefits.

The provision for direct claims handling expenses for reported claims is calculated for each claim individually, and for claims incurred but not reported – using the generalized Chain Ladder method (based on the cost triangles analysis, broken down by the years in which the losses occurred).

The provision for indirect claims handling expenses is calculated using the actuarial method, as a product of the ratio of the percentage of indirect claims handling expenses in claims paid and direct claims handling expenses and the sum of provision for claims reported but not paid and the provision for losses and accidents incurred but not reported and the provision for direct claims handling expenses.

The 1st and the 2nd provisions and the provision for claims handling expenses are recognized at the nominal value, i.e. they are not discounted.

Provision for the capitalized value of annuities

Provision for the capitalized value of annuities is calculated on a case-by-case basis as the present value of an annuity (lifetime or temporary) paid in advance.

The provision for the capitalized value of annuities from losses incurred but not recognized as annuities by the date of calculating the provision (i.e. IBNR provision for annuities), is created on the basis of expected number of new annuities and the expected average value of future annuities.

Provision adequacy tests

When consolidated financial statements are prepared, a procedure that is similar to the provision adequacy test in life insurance is conducted to verify whether claims provisions within individual products are sufficient. The test takes into account current trends in accident incidence, reporting rates and claim payments. If the estimates that consider current trends are higher than claims provisions then the provisions are increased up to the estimated amount.

The mechanism for recognizing the provision for unexpired risks in non-life insurance corresponds to the minimum requirements for the provisions adequacy test.

42.1.2. Life insurance

Provision for unearned premiums and provision for unexpired risk

Provision for unearned premiums is created as the portion of gross written premium that corresponds to future reporting periods, pro rata to the period for which the premium is written.

The provision for unexpired risk is created for renewable group insurance portfolios in which a deficit on future contributions occurred relative to the expected benefits and other outflows (costs and commissions). The provision is created cumulatively for the entire insurance portfolio as the value of the expected future loss during the liability period.

Life insurance provision

Life insurance provision is calculated using prospective actuarial methods, for each insurance contract individually, using the net premium reserves method; they are equal to the difference between:

- expected present value of guaranteed benefits that may arise out of the insurance cover provided;
- present value of premiums expected to be paid until the end of the term of these contracts.

In unit-linked insurance, a life insurance provision is created to cover current claims arising out of the insurance cover over and above the amount of the unit-linked fund; it corresponds to the part of the payments collected for the insurance cover that is attributable to future reporting periods.

The calculation of a life insurance provision also includes a mark-up on costs, while the provisions themselves are not reduced by the value of deferred acquisition expenses.

Unit-linked life insurance provision

Unit-linked life insurance provisions are recognized in the amount of the investment made under the terms of the contract.

Provision for outstanding claims and benefits

Provision for outstanding claims and benefits is created separately for:

- claims reported but not paid – using the individual method or, if the loss amount cannot be assessed (if the occurrence of losses is a mass phenomenon), using the average claim from the quarter immediately preceding the reporting quarter;
- claims incurred but not reported – using the flat-rate method, as a percentage of claims paid for the last twelve months.

The provision for outstanding claims and benefits also includes the provision for claims handling expenses.

Provisions for bonuses and discounts for insureds

The provision is recognized in an amount taking into account the expected amounts by which future claims will be increased or future premiums will be decreased, in accordance with the current bonuses and discounts granting method.

Other technical provisions

Other technical provisions in life insurance include:

- revaluation provision for claims under individual life insurance and annuities taken over from Państwowy Zakład Ubezpieczeń;
- provision for pending court proceedings and benefits arising out of court rulings pursuant to Article 358 § 3 of the Civil Code Act of 23 April 1964 changing the amount or performance of a cash benefit;
 - for unit-linked life insurance and annuities taken over from Państwowy Zakład Ubezpieczeń, the value of the provision was determined based on the value of expected future additional benefits resulting from court cases and settlements. The value of these benefits has been determined by extrapolating the historical trend of benefits estimated based on the number of completed court proceedings and settlements and the value of the awarded amounts;
 - for other insurance based on the value in dispute and the likelihood of an award or settlement;

- low interest rate provision – related to the expected decrease in return on assets covering life insurance provisions for traditional individual life insurance and provisioning of children and disability pensions. The amount of this provision has been determined based on the value of expected future additional benefits arising out of court cases and settlements.
 - the amount of the mathematical provisions calculated by using appropriate mathematical formulas and by applying modified technical rates, considering their expected reduction in the future, and
 - the amount of the mathematical provisions calculated in line with the applicable provisioning regulations, at the original technical rate that was used to price the products.

Provision adequacy tests

At the end of each year, for each product in the life insurance portfolio, the amount of technical provisions recognized in the consolidated financial statements is compared with the present value of expected future cash flows, i.e. the economic value of liabilities. These cash flows projections include: premium income and commission reimbursements (the so-called clawback in protection bank insurance with a one-time premium charge associated with early termination), expenditures on benefits, expenses, fees and commissions and are based on several assumptions regarding: mortality, loss ratio, lapse rates, servicing expenses, yields curves and other product-specific assumptions (e.g. indexation).

The assumptions used to project future cash flows, regarding expected future mortality, loss ratio, lapse rates and other product-specific assumptions, are reviewed and updated on an annual basis based on current experience and observed trends. Taken together with the assessment of their further development, they constitute the best estimate assumption for further developments in mortality, loss, lapses, etc.

Future indexations of sum insured and premium amounts resulting from the profit participating rights, defined as the excess of rates of return on investments over the technical rate, are based on a projection of future rates of return on the current portfolio of assets to cover provisions for these products, together with their expected future reinvestments at the present term structure of interest rates, i.e. in line with current market expectations.

Future costs are projected based on the expected number of contracts remaining in the portfolio in successive periods and the average unit service cost per contract. The assumptions for unit costs are adopted on the basis of expected future portfolio maintenance and servicing expenses, asset management and claims handling expenses. It is assumed that unit service costs will rise in successive years of the projection period by the cost increase ratio. The amount of future commissions is determined based on the agreed commission rates for individual contracts in their successive years.

The present value of future cash flows is calculated using the discount factors based on the unadjusted yield of Polish government bonds according to their current market quotations.

The test compares the present value of projected cash flows with the amount of provisions shown at the end of each year. If provisions are found to be insufficient in relation to the value of discounted cash flows, changes are introduced to the existing provisioning rules and consequently their value is adjusted.

The purpose of the provision adequacy test is to assess whether the technical provision amounts captured in the consolidated financial statements are sufficient, rather than to assess adequacy of the individual assumptions. Accordingly, the provision adequacy test does not directly identify the degree of adequacy or inadequacy of the individual assumptions adopted in technical provision estimation process.

The test carried out as at 31 December 2022 showed the adequacy of provisions for all product groups.

42.1.3. Reinsurers' share

Reinsurers' share in the provision for unearned premiums, in the provision for unexpired risk and in the provision for outstanding claims and benefits is determined at the amount stated in the terms and conditions of the relevant reinsurance treaties.

Reinsurers' share in claims and benefits is determined for those insurance groups, for which there is reinsurance coverage, to the extent to which reinsurers participate in the claims and benefits according to the terms and conditions of the pertinent reinsurance treaties in effect in a given period.

42.2 Estimates and assumptions

The PZU Group continuously monitors insured events, in particular those related to the COVID-19 pandemic and high inflation.. Based on the ongoing analyses, the PZU Group adjusted the value of the IBNR provision to the increase in deaths observed at the end of 2022, resulting from the next wave of the COVID-19 pandemic and flu. A high inflation has translated into an increase in the levels of current and future indexation in the individually continued portfolio and thus into an increase in provisions.

In the case of non-life insurance, inflation contributed to an increase in the average loss paid, but no increases were observed on the direct claim handling costs side. Maintained levels of technical provisions are sufficient to cover probable excess claims inflation. For annuity provisions, the increase in indexation is offset by an increase in the discount rate.

42.2.1. Non-life insurance

In the calculation of provisions for outstanding claims and benefits, the uncertainty related to bodily injury claims is taken into account. For such claims, changes in the legal environment and uncertain jurisprudence may affect the ultimate amount of benefits paid.

When calculating the provision for the capitalized value of annuities, the future increase in average annuity is estimated based on historical data and taking into account other information that may contribute to an increase in annuities in the future (for example, growing insurance awareness, legislative changes, etc.).

Both as at 31 December 2022 and 31 December 2021, a discount rate of -0.3% was assumed for all annuities.

For lifetime annuities, the period in which the annuity will be payable is determined using publicly available statistics (in Poland – Polish Life Expectancy Tables). Additionally, the provision for the capitalized value of annuities is calculated taking into account the cost of future handling services at 3% of the value of benefits paid.

The estimated final value of claims and benefits paid in provision development triangles and the analysis of sensitivity of the net result and equity to changes in the assumptions used to calculate the provision for the capitalized value of annuities are presented in section 8.5.2.1.

42.2.2. Life insurance

The amount of the life insurance provision corresponds to the value of liabilities under insurance contracts concluded. It is calculated as the difference between the present value of expected benefits and the present value of expected premiums. The calculation of provisions takes into account all the benefits and premiums provided for in contracts as contractual liabilities and receivables, regardless of whether a contract is performed by the policyholder until the end of the agreed term or terminated by the policyholder. The assumptions made for the frequency of events covered by insurance, i.e. mortality, morbidity and accident rate, are determined based on publicly available statistics, such as the Polish Life Expectancy Tables in Poland or based on own statistics developed using historical data on particular groups of products in the portfolio.

The assumptions used to calculate life insurance provisions are determined separately for each insurance product at the time the premium tariffs are adopted and sales of the product are launched (lock-in assumptions). Such assumptions are subject to natural uncertainty resulting from the long term of the projection. However, these assumptions are verified for adequacy every year. The data are subjected to an analysis in particular in terms of the behavior of the whole portfolio, as opposed to various distinct cases. If it is found that an assumption is inadequate, it is verified and adjusted, which leads directly to a change in the value of liabilities presented in the consolidated financial statements.

In the calculation of its technical provisions, the PZU Group applies the Polish Life Expectancy Tables or other publicly available statistics, among other sources. For the group and continued insurance portfolio, the calculation of provisions also makes use of assumptions regarding the probability of the insured having co-insureds (spouse, parents and in-laws). These assumptions, due to their long-term nature, are subject to natural uncertainty as to the actual evolution of the portfolio.

For the mortality rate, the Polish Life Expectancy Tables from 2018 were used with additional mark-ups for the main insured (depending on the age of the insured).

The PZU Group applies an individual method to calculate provisions for its group insurance portfolio.

A provision for unexpired risk was established for the group insurance portfolio being annual renewable insurance products. Its aim is to cover the deficit on future contributions with respect to the expected benefits and other outflows (costs and commissions) arising from increased mortality resulting from the COVID-19 pandemic.

The analysis of sensitivity of the net result and equity to changes in the assumptions used to calculate technical provisions in life insurance is presented in section 8.5.2.2.

42.3 Quantitative data

Technical provisions	31 December 2022			31 December 2021		
	gross	share of reinsurers	net	gross	share of reinsurers	net
Technical provisions in non-life insurance	29,892	(4,015)	25,877	26,881	(2,539)	24,342
Provision for unearned premiums	10,624	(1,579)	9,045	9,423	(1,139)	8,284
Provision for unexpired risk	26	-	26	42	-	42
Provision for outstanding claims and benefits	12,680	(2,160)	10,520	11,039	(1,119)	9,920
– for reported claims	5,240	(1,861)	3,379	4,024	(966)	3,058
– for claims not reported (<i>IBNR</i>)	5,054	(256)	4,798	4,748	(129)	4,619
– for claims handling expenses	2,386	(43)	2,343	2,267	(24)	2,243
Provision for the capitalized value of annuities	6,543	(269)	6,274	6,371	(280)	6,091
Provisions for bonuses and discounts for insureds	16	(7)	9	6	(1)	5
Other technical provisions	3	-	3	-	-	-
Technical provisions in life insurance	22,714	-	22,714	23,292	(1)	23,291
Provision for unearned premiums	110	-	110	113	(1)	112
Provision for unexpired risk	-	-	-	25	-	25
Life insurance provision	17,014	-	17,014	16,345	-	16,345
Provision for outstanding claims and benefits	676	-	676	676	-	676
– for reported claims	186	-	186	163	-	163
– for claims not reported (<i>IBNR</i>)	485	-	485	508	-	508
– for benefits handling expenses	5	-	5	5	-	5
Provisions for bonuses and discounts for insureds	3	-	3	6	-	6
Other technical provisions	156	-	156	164	-	164
Unit-linked provision	4,755	-	4,755	5,963	-	5,963
Total technical provisions	52,606	(4,015)	48,591	50,173	(2,540)	47,633

42.3.1. Technical provisions in non-life insurance

Provisions (by accounting classes prescribed by section II of the attachment to the Insurance Activity Act)	31 December 2022			31 December 2021		
	gross	share of reinsurers	net	gross	share of reinsurers	net
Accident and sickness insurance (group 1 and 2)	1,064	(157)	907	1,014	(125)	889
Motor third party liability insurance (group 10)	15,632	(708)	14,924	15,314	(670)	14,644
Other motor insurance (group 3)	3,673	(11)	3,662	3,248	(35)	3,213
Marine, aviation and transport insurance (groups 4, 5, 6, 7)	227	(117)	110	177	(78)	99
Insurance against fire and other property damage (groups 8 and 9)	3,949	(1,363)	2,586	3,308	(1,020)	2,288
TPL insurance (groups 11, 12, 13)	3,006	(307)	2,699	2,721	(259)	2,462
Credit and suretyship (groups 14, 15)	360	(140)	220	251	(131)	120
Assistance (group 18)	500	(2)	498	430	(1)	429
Legal protection (group 17)	27	-	27	23	-	23
Other (group 16)	1,454	(1,210)	244	395	(220)	175
Total technical provisions	29,892	(4,015)	25,877	26,881	(2,539)	24,342

Technical provisions in non-life insurance	31 December 2022			31 December 2021		
	gross	share of reinsurers	net	gross	share of reinsurers	net
Short-term	6,559	(969)	5,590	5,669	(646)	5,023
Long-term	23,333	(3,046)	20,287	21,212	(1,893)	19,319
Total technical provisions	29,892	(4,015)	25,877	26,881	(2,539)	24,342

Long-term provisions are those under which projected cash flows will occur more than 12 months after the end of the reporting period, or after 31 December 2022.

Movement in provisions

Movement in the provision for unearned premiums in non-life insurance	1 January – 31 December 2022			1 January – 31 December 2021		
	gross	share of reinsurers	net	gross	share of reinsurers	net
Beginning of the period	9,423	(1,139)	8,284	8,645	(924)	7,721
Increase (reduction) of provisions relating to policies concluded in the current year	9,620	(1,298)	8,322	8,466	(785)	7,681
Increase (reduction) of provisions relating to policies concluded in previous years	(8,418)	855	(7,563)	(7,696)	572	(7,124)
Foreign exchange differences in the period	(1)	3	2	8	(2)	6
Total technical provisions	10,624	(1,579)	9,045	9,423	(1,139)	8,284

Movement in provision for unexpired risk	1 January – 31 December 2022			1 January – 31 December 2021		
	gross	share of reinsurers	net	gross	share of reinsurers	net
Beginning of the period	42	-	42	32	-	32
Increase (reduction) of provisions relating to policies concluded in the current year	10	-	10	31	-	31
Increase (reduction) of provisions relating to policies concluded in previous years	(26)	-	(26)	(21)	-	(21)
End of the period	26	-	26	42	-	42

Movement in the provision for outstanding claims and benefits in non-life insurance	1 January – 31 December 2022			1 January – 31 December 2021		
	gross	share of reinsurers	net	gross	share of reinsurers	net
Beginning of the period	11,039	(1,119)	9,920	10,371	(903)	9,468
Benefits paid related to losses incurred in previous years, including:	(2,961)	199	(2,762)	(2,546)	89	(2,457)
– claims paid	(2,537)	197	(2,340)	(2,138)	87	(2,051)
– claims handling expenses	(424)	2	(422)	(408)	2	(406)
Increase (reduction) of provisions, including:	4,609	(1,249)	3,360	3,204	(298)	2,906
– relating to losses incurred in the current year	5,203	(1,211)	3,992	3,923	(280)	3,643
– relating to losses incurred in previous years	(594)	(38)	(632)	(719)	(18)	(737)
Other changes	-	2	2	-	(1)	(1)
Foreign exchange differences in the period	(7)	7	-	10	(6)	4
End of the period	12,680	(2,160)	10,520	11,039	(1,119)	9,920

Movement in provision for the capitalized value of annuities in non-life insurance	1 January – 31 December 2022			1 January – 31 December 2021		
	gross	share of reinsurers	net	gross	share of reinsurers	net
Beginning of the period	6,371	(280)	6,091	6,226	(273)	5,953
Claims paid related to losses incurred in previous years	(262)	6	(256)	(280)	11	(269)
Increase (reduction) of provisions relating to losses incurred in previous years	35	(4)	31	104	(33)	71
Changes in assumptions resulting from movements in technical rates	(6)	-	(6)	(9)	-	(9)
Increase in provisions relating to losses incurred in the current year	402	9	411	330	15	345
Foreign exchange differences in the period	3	-	3	-	-	-
End of the period	6,543	(269)	6,274	6,371	(280)	6,091

42.3.2. Technical provisions in life insurance

Movement in the life insurance provision, provision for bonuses and discounts and other technical provisions – insurance contracts	1 January – 31 December 2022			1 January – 31 December 2021		
	gross	share of reinsurers	net	gross	share of reinsurers	net
Beginning of the period	16,515	-	16,515	16,505	-	16,505
Increase (reduction) of provisions relating to policies concluded in the current year	2,115	-	2,115	1,384	-	1,384
Increase (reduction) of provisions relating to policies concluded in previous years	(1,427)	-	(1,427)	(1,388)	-	(1,388)
Changes in assumptions resulting from movements in technical rates	(1)	-	(1)	-	-	-
Foreign exchange differences	(29)	-	(29)	14	-	14
End of the period	17,173	-	17,173	16,515	-	16,515

Movement in unit-linked life insurance provision	1 January – 31 December 2022			1 January – 31 December 2021		
	gross	share of reinsurers	net	gross	share of reinsurers	net
Beginning of the period	5,963	-	5,963	5,920	-	5,920
Fund increases due to premiums	504	-	504	1,193	-	1,193
Fees charged	(102)	-	(102)	(104)	-	(104)
Income on fund's investments	(454)	-	(454)	(75)	-	(75)
Fund reductions due to claims, surrenders etc.	(1,120)	-	(1,120)	(921)	-	(921)
Other changes	(36)	-	(36)	(50)	-	(50)
End of the period	4,755	-	4,755	5,963	-	5,963

Movement in provisions for outstanding claims and benefits	1 January – 31 December 2022			1 January – 31 December 2021		
	gross	share of reinsurers	net	gross	share of reinsurers	net
Beginning of the period	676	-	676	613	-	613
Claims provisions used during the year	(668)	-	(668)	(613)	-	(613)
Claims provisions recognized during the year	668	-	668	676	-	676
End of the period	676	-	676	676	-	676

43. Subordinated liabilities

43.1 Accounting policy

Subordinated liabilities are recognized in the statement of financial position when the PZU Group company becomes a party to a binding contract in which it assumes the risk associated with the financial instrument.

In the next periods subordinated liabilities are measured at amortized cost.

Subordinated liabilities (or parts thereof) are excluded from the consolidated statement of financial position when the obligation specified in the contract is discharged or canceled or expires.

43.2 Quantitative data

	Par value	Currency	Interest rate	Issue date/Maturity date	Carrying amount 31 December 2022	Carrying amount 31 December 2021
Liabilities classified as PZU's own funds						
Subordinated bonds – PZU	2,250	PLN	WIBOR 6M + margin	30 June 2017 / 29 July 2027	2,333	2,266
Liabilities classified as Pekao's own funds						
A series bonds	1,250	PLN	WIBOR 6M + margin	30 October 2017 / 29 October 2027	1,270	1,255
B series bonds	550	PLN	WIBOR 6M + margin	15 October 2018 / 16 October 2028	560	553
C series bonds	200	PLN	WIBOR 6M + margin	15 October 2018 / 14 October 2033	204	201
D series bonds	350	PLN	WIBOR 6M + margin	4 June 2019 / 4 June 2031	352	351
D1 series bonds	400	PLN	WIBOR 6M + margin	4 December 2019 / 4 June 2031	403	401
Liabilities classified as Alior Bank's own funds						
F series bonds	322	PLN	WIBOR 6M + margin	26 September 2014 / 26 September 2024	229	225
K and K1 series bonds	600	PLN	WIBOR 6M + margin	20 October 2017 / 20 October 2025	612	604
EUR001 series bonds	10	EUR	LIBOR 6M + margin	4 February 2016 / 4 February 2022	-	47
P1A series bonds	150	PLN	WIBOR 6M + margin	27 April 2016 / 16 May 2022	-	151
P1B series bonds	70	PLN	WIBOR 6M + margin	29 April 2016 / 16 May 2024	71	70
P2A series bonds	150	PLN	WIBOR 6M + margin	14 December 2017 / 29 December 2025	150	150
Subordinated liabilities					6,184	6,274

The lower carrying amount of subordinated liabilities compared to the nominal value ensues from some of the bonds issued by Alior Bank were subscribed for by consolidated mutual funds.

Subordinated liabilities by maturity	31 December 2022	31 December 2021
Up to 1 year	-	198
1 to 5 years	4,665	1,049
Over 5 years	1,519	5,027
Total subordinated liabilities by maturity	6,184	6,274

44. Liabilities on the issue of own debt securities

44.1 Accounting policy

Subordinated liabilities are recognized in the statement of financial position when the PZU Group company becomes a party to a binding contract in which it assumes the risk associated with the financial instrument.

In the next periods they are measured at amortized cost.

Liabilities on the issue of own debt securities (or parts thereof) are excluded from the consolidated statement of financial position when the obligation specified in the contract is discharged or canceled or expires.

44.2 Quantitative data

Liabilities on the issue of own debt securities	31 December 2022	31 December 2021
Bonds	3,488	4,154
Certificates of deposit	6,646	695
Covered bonds	956	1,091
Liabilities on the issue of own debt securities, total	11,090	5,940

Liabilities on the issue of own debt securities by maturity	31 December 2022	31 December 2021
Up to 1 year	9,631	4,433
1 to 5 years	1,459	1,042
Over 5 years	-	465
Liabilities on the issue of own debt securities by maturity, total	11,090	5,940

45. Liabilities to banks

45.1 Accounting policy

Liabilities to banks are recognized in the statement of financial position when the PZU Group company becomes a party to a binding contract in which it assumes the risk associated with the financial instrument.

In the next periods they are measured at amortized cost.

Liabilities to banks (or parts thereof) are excluded from the consolidated statement of financial position when the obligation specified in the contract is discharged or canceled or expires.

45.2 Quantitative data

Liabilities to banks	31 December 2022	31 December 2021
Current deposits	855	821
One-day deposits	868	3
Term deposits	508	1,893
Loans received	5,271	4,658
Other liabilities	218	95
Liabilities to banks, total	7,720	7,470

Liabilities to banks by maturity	31 December 2022	31 December 2021
Up to 1 year	3,700	4,192
1 to 5 years	2,696	2,417
Over 5 years	1,324	861
Liabilities to banks by maturity, total	7,720	7,470

46. Liabilities to clients under deposits

46.1 Accounting policy

Liabilities to clients under deposits are recognized in the statement of financial position when the PZU Group company becomes a party to a binding contract in which it assumes the risk associated with the financial instrument.

In the next periods they are measured at amortized cost.

Liabilities to clients under deposits (or parts thereof) are excluded from the consolidated statement of financial position when the obligation specified in the contract is discharged or canceled or expires.

46.2 Quantitative data

Liabilities to clients under deposits	31 December 2022	31 December 2021
Current deposits	206,298	241,112
Term deposits	70,655	23,067
Other liabilities	1,105	976
Liabilities to clients under deposits, total	278,058	265,155

Liabilities to clients under deposits by maturity	31 December 2022	31 December 2021
Up to 1 year	268,781	264,563
1 to 5 years	3,809	537
Over 5 years	5,468	55
Liabilities to clients under deposits by maturity, total	278,058	265,155

47. Other liabilities

47.1 Accounting policy

Financial liabilities are recognized in the statement of financial position of financial position at the moment when a PZU Group company becomes a party to a binding contract, under which it assumes the risks associated with the financial instrument. In the case of transactions concluded on an organized market, the purchase or sale of financial liabilities are recognized in the books on the date of the transaction.

A financial liability (or part thereof) is excluded from the consolidated statement of financial position when the obligation specified in the contract is discharged or canceled or expires.

Financial liabilities measured at fair value through profit or loss included in particular:

- liabilities on borrowed securities (short sale);
- investment contracts for the client's account and risk (unit-linked);
- liabilities to members of consolidated mutual funds.

Financial liabilities measured at amortized cost included in particular liabilities on account of repurchase transactions.

Trade liabilities are recognized at the required payment amount due to their short-term nature.

Accrued expenses resulting from benefits provided for PZU Group companies by external business partners or from an obligation to provide benefits whose value can be estimated, despite the fact that the date when the liability is created is not yet known, is measured at the amount of estimated future cash flows.

The costs of holiday leaves is recognized on the accrual basis using the liability method. The liability on account of employee vacation time is determined based on the difference between the actual amount of vacation time used by employees and the amount that would have been used if the vacation time had been taken pro rata to the elapse of time in the period when the employees are entitled to their vacation time.

47.2 Quantitative data

Other liabilities	31 December 2022	31 December 2021
Liabilities measured at fair value	1,418	1,333
Liabilities on borrowed securities (short sale)	875	686
Investment contracts for the client's account and risk (unit-linked)	238	267
Liabilities to members of consolidated mutual funds	305	380
Accrued expenses	2,729	2,230
Accrued expenses of agency commissions	396	381
Accrued payroll expenses	726	750
Accrued reinsurance expenses	1,075	725
Other	532	374
Deferred revenue	615	502
Other liabilities	12,416	9,138
Liabilities on account of repurchase transactions	931	1,207
Lease liabilities	1,296	992
Liabilities due under transactions on financial instruments	2,283	1,338
Liabilities to banks for payment documents cleared in interbank clearing systems	2,331	1,251
Liabilities on direct insurance	1,020	955
Liabilities on account of payment card settlements	923	404
Regulatory settlements	573	275
Liabilities for contributions to the Bank Guarantee Fund	738	629
Reinsurance liabilities	252	228
Estimated non-insurance liabilities	162	159
Liabilities to employees	116	101
Estimated refunds of compensation in connection with banks' clients lapsing or withdrawing from insurance purchased during the sale of credit products	27	18
Trade liabilities	486	652
Current income tax liabilities	328	147 ¹⁾
Liabilities on account of employee leaves	162	165
Liabilities to the state budget other than for income tax	153	68
Liabilities on account of donations	13	17
The PZU Group banks' liabilities for insurance of bank products offered to the bank's clients	14	28
Insurance Guarantee Fund	14	13
Liability for the refund of loan costs	132	96
Liabilities for direct claims handling	32	36
Other	430	359
Other liabilities, total	17,178	13,203

¹⁾ This includes PLN 72 million in tax liability in Sweden. Additional information on this issue is presented in item 59.4.

As at 31 December 2022 and 31 December 2021, the fair value of other liabilities did not differ significantly from their carrying amount, primarily due to the fact that more than 90% were short-term liabilities.

Other liabilities by maturity	31 December 2022	31 December 2021
Up to 1 year	14,888	11,858
1 to 5 years	1,878	795
Over 5 years	412	550
Total other liabilities by maturity	17,178	13,203

48. Provisions

48.1 Accounting policy

A provision is a liability of uncertain timing or amount. A provision is recognized on the basis of a current obligation arising from past events, the settlement of which will result in an outflow of resources embodying economic benefits. A provision amount is determined based on a reliable estimation of this outflow at the balance sheet date.

Provisions for guarantees and sureties are determined as a difference between the expected value of a balance sheet exposure arising from an off-balance sheet liability and the present value of expected future cash flows obtained from the balance sheet exposure resulting from the liability granted.

The provision for restructuring costs is recognized only if, in addition to the general criteria for recognizing provisions, also the specific criteria pertaining to provisions for restructuring costs are satisfied. These include, among others, holding a detailed, formal restructuring plan and evoking a justified expectation of the parties to which the plan pertains that restructuring actions will be taken (through commencement of implementation of the plan or announcement of its key elements).

In connection with the accepted accounting and the fact that PZU Group companies have not separated assets of defined benefit plans, the carrying amount of provisions for defined benefit plans is equal to the carrying amount of their corresponding liabilities.

Defined contribution plans include the costs of contributions constituting statutory charges on employee salaries incurred by the employer. They include, among others, part of the contributions for retirement and disability pension insurance, Labor Fund, Guaranteed Employee Benefit Fund and the charge for the Company Social Benefit Fund. The costs of defined contribution plans are charged to the profit and loss account in the period to which they pertain.

Defined benefit plans include, among others, the costs of retirement severance pays and post-mortem benefits. The costs of defined benefit plans estimated using actuarial methods are recognized on an accrual basis by applying the forecast specific entitlements method.

Actuarial gains and losses are recognized in full in the period in which they occurred, in the line item "Actuarial gains and losses related to provisions for employee benefits" in other comprehensive income. More information is presented in section 41.3.1.

48.2 Estimates and assumptions

Provisions for disputes are determined on a case-by-case basis, taking into account the probability of an outflow of resources embodying economic benefits to meet the obligation. An outflow of resources is regarded as probable if the event is more likely than not to occur, i.e. the probability that the event will occur is greater than the probability that it will not.

Detailed descriptions and provision amounts are presented in section 56.

The provisions for retirement severance pays and post-mortem benefits are estimated with actuarial methods using appropriate actuarial techniques and assumptions – discount rates, consistent with the zero-coupon Treasury bond yield curve, mortality rate adopted at the level specified in the PLET, expected salary increase rate in individual PZU Group companies, employee turnover rate (diversified in terms of, among others, the employee's age, years in service and gender) and the disability rate (disability pensions) adopted as an appropriate percentage of the mortality rate.

48.3 Quantitative data

Provisions	31 December 2022	31 December 2021
Short-term	436	406
Long-term	1,275	800
Total provisions	1,711	1,206

Movement in provisions in the period ended 31 December 2022	Beginning of the period	Increase	Utilization	Reversal	Other changes	End of the period
Provisions for guarantees and sureties given	496	443	-	(432)	7	514
Provision for retirement severance pays	267	34	(43)	(3)	10	265
Provision for disputed claims and potential liabilities	69	60	(14)	(29)	2	88
Provision for potential refunds of borrowing costs	120	55	(48)	-	-	127
Provision for legal risk pertaining to mortgage loans in Swiss francs	132	502	(9)	(146)	-	479
Provisions for refunds to clients of increased mortgage loan margins before the mortgage is established	-	129	(6)	-	-	123
Provision for penalties imposed by the Office of Competition and Consumer Protection	39	-	-	-	-	39
Provision for restructuring costs	28	1	(8)	-	-	21
Provision for post-mortem benefits	25	2	-	(2)	-	25
Other	30	6	(4)	(2)	-	30
Total provisions	1,206	1,232	(132)	(614)	19	1,711

Movement in provisions in the period ended 31 December 2021	Beginning of the period	Increase	Utilization	Reversal	Other changes	End of the period
Provisions for guarantees and sureties given	555	340	-	(401)	2	496
Provision for retirement severance pays	323	32	(38)	(4)	(46)	267
Provision for disputed claims and potential liabilities	80	34	(35)	(11)	1	69
Provision for potential refunds of borrowing costs	128	75	(83)	-	-	120
Provision for legal risk pertaining to mortgage loans in Swiss francs	91	43	-	(2)	-	132
Provision for penalties imposed by the Office of Competition and Consumer Protection	39	-	-	-	-	39
Provision for restructuring costs	93	120	(137)	(48)	-	28
Provision for post-mortem benefits	32	1	(3)	(4)	(1)	25
Other	37	12	(10)	(9)	-	30
Total provisions	1,378	657	(306)	(479)	(44)	1,206

Provision for potential refunds of borrowing costs

On 11 September 2019, the CJEU judgment in case C-383/18 was published. In its ruling, the CJEU stated that Article 16(1) of Directive 2008/48/EC of the European Parliament and of the Council of 23 April 2008 on credit agreements for consumers and repealing Council Directive 87/102/EEC should be interpreted as meaning that the consumer's right to reduce the total cost of credit in the event of an early repayment includes all costs that have been imposed on the consumer.

Based on the legal interpretations in its possession, for the settlement of credit costs with borrowers the PZU Group applied the linear formula whereby a pro rata approach is adopted based on the period between the actual loan repayment date and the repayment date specified in the loan agreement and requires that any non-recurring cost be broken down on a pro rata basis across all payment periods.

In the case of early repayments of consumer and mortgage loans made before the date of the CJEU judgment, the PZU Group estimates the amount of expected disbursements pursuant to IAS 37 and recognizes a provision for this purpose which is charged to other operating expenses.

In 2022, PLN 48 million of the provision was utilized and its amount as at 31 December 2022 was PLN 127 million (as at 31 December 2021: PLN 120 million). Its value is the best possible estimate based on the historically observed trend of the amount of loan cost refunds arising from reported complaints and takes into account the scenario of a possible evolution of market practice or the regulator's views. The estimates required the adoption of expert assumptions and are affected by uncertainty. For this reason, the provision amount will be subject to updates in the next periods, depending on the number of complaints and amounts to be refunded.

Significant assumptions applied for the estimation of the provision include the change in the rate of decline in the refunded amounts.

Impact of the change in the rate of decline in the amounts of refunds on the value of the provision	31 December 2022	31 December 2021
+10%	(4)	(5)
-10%	4	6

Provision for legal risk pertaining to FX mortgage loans in Swiss francs

On 3 October 2019, CJEU issued a ruling regarding the effects of possible abusiveness of the provisions of an individual agreement on a CHF-indexed loan granted by one of the banks. CJEU interpreted the provisions of Council Directive 93/13/EEC of 5 April 1993 on unfair terms in consumer contracts in the context of the Swiss franc-indexed loan agreement. CJEU specified the effects of declaring the possible abusiveness of the conversion clauses by the national court, without analyzing at all the possible abusiveness of the contractual provisions. CJEU did not rule that if the national court deems a clause abusive, then it should automatically declare the entire agreement invalid. An assessment in this respect is up to the national court, however CJEU did not rule out the possibility of supplementing the gap resulting from the abusiveness of the conversion clauses using national supplementary provisions.

The CJEU ruling provides general guidance for Polish ordinary courts. The ultimate resolutions made by Polish courts will be based on EU regulations interpreted in accordance with the CJEU judgment, taking into consideration the national laws and analysis of the individual circumstances of each case. The line of rulings in cases involving mortgage loans in Swiss francs has formed in an unfavorable way, resulting in judgments by the courts establishing the invalidity of loan agreements and ordering borrowers to repay the benefits they have fulfilled. So far, there has been no resolution of the full panel of the Civil Chamber of the Supreme Court addressing the issues covered by the request of the First President of the Supreme Court, in particular the following aspects:

- can abusive provisions regarding the method of determining the exchange rate of the currency in a indexed or denominated loan agreement be replaced by the provisions of civil or common law;
- if it is impossible to determine a binding exchange rate of a foreign currency in a denominated loan agreement, can the agreement bind the parties to the remaining extent;
- if it is impossible to determine a binding exchange rate of a foreign currency in a loan agreement, can the agreement bind the parties to the remaining extent;
- if a loan agreement is invalidated will the theory of balance or the theory of two conditions apply;
- what is the moment determining the start of the statute of limitations period if the bank makes a claim against the borrower for refund of the disbursed loan;
- is it possible for banks and borrowers to receive remuneration for the use of funds.

In the opinion of the PZU Group, the Supreme Court's ruling on the above issues may have a significant impact on the further development of the line of judicial rulings in the context of the last three issues, as the remaining issues have been prejudged by preliminary rulings issued by the CJEU. It should also be noted that it is uncertain if and when the Civil Chamber in its full composition will adopt a resolution on the aforementioned legal questions.

An important ruling on Swiss franc mortgages is the CJEU's September 8, 2022 judgment in the combined cases C-80/21 to C-82/21, in which the CJEU answered the requests for a preliminary ruling questions made by the Warsaw-Śródmieście District Court in Warsaw. The CJEU stated:

- a national court may not declare unfair not the entirety of a contract term, but only its element that make it unfair, if such removal would amount to a change of the content of the term that would affect its essence. This means that, in principle, the national court is limited to determining the unfairness of the entire contract term;
- if the national court determines that a contract term is unfair, which in a given case results in the possibility of continuing to maintain the validity of the entire contract despite the exclusion of the unfair terms, the national court may not replace these terms with a supplementary provision of national law. This means that in such a case the national court cannot apply the provisions of the Civil Code on converting installments using the average exchange rate of the National Bank of Poland;
- the national court, having found a contract term to be unfair, is not authorized to change the content of the term in order to maintain the validity of the contract, which cannot remain in force after the removal of the term, if the consumer in question has been informed of the consequences of the invalidity of the contract and has agreed to the consequences thereof. This means that if the consumer has agreed to the consequences of the invalidity of the contract (having been informed of them), the national court by a ruling cannot change the content of such a term, but must declare it invalid;
- the running of the 10-year statute of limitations for a consumer's claim for repayment of paid installments cannot begin from the time of delivery of each performance under the contract (repayment of each installment), even if the consumer was not able to assess the unfairness of the contract term on his own or did not become aware of the unfairness of the term, and without taking into account that the loan agreement provided for a much longer (30-year) repayment period. This means that the running of the 10-year statute of limitations for a consumer's claim for repayment of installments does not start from the date of repayment of each installment. In practice, it should be assumed that no consumer's claims for refund of paid installments are time-barred.

The CJEU, however, still has not ruled on the requests for preliminary rulings concerning the statute of limitations for the bank's claim against the consumer (for the return of the paid out principal, or for remuneration, if any, for the use of the principal), as well as whether the bank is entitled to a claim for remuneration for the use of principal at all. The CJEU will probably not rule on these issues before the middle of 2023 at the earliest.

On 16 February 2023, the Advocate General of the CJEU issued an opinion under Article 252 of the Treaty on the Functioning of the European Union in case C-520/21 in proceedings in which the Warsaw-Śródmieście District Court, 1st Civil Division, submitted a request for a preliminary ruling from the CJEU, in which the CJEU would take a position on the question, whether, where a loan agreement concluded by a bank and a client is invalid from the outset due to the inclusion in it of unfair contractual terms, the parties, in addition to the return of the money paid in performance of the agreement (the bank – the loan principal, the client – the installments, fees, commissions and insurance premiums) and statutory interest for delay from the time of the demand for payment, may also claim any other benefits.

In the above opinion, the Advocate General of the CJEU concluded that Articles 6(1) and 7(1) of Council Directive 93/13/EEC of 5 April 1993 on unfair terms in consumer contracts should be interpreted as follows:

- the aforementioned provisions do not preclude the judicial interpretation of national law, according to which, if a loan agreement concluded by a client and a bank is deemed to be invalid from the outset due to the inclusion in it of unfair contractual terms, the client, in addition to the return of the money paid on the basis of the agreement and the payment of statutory interest for delay from the time of the demand for payment, may, following such recognition, also demand additional benefits from the bank. In doing so, it is up to the national court to determine, in light of national law, whether clients have the right to assert such claims and, if so, to rule on their merits;
- the aforementioned provisions preclude the judicial interpretation of national law, according to which, if a loan agreement concluded by a client and a bank is deemed to be invalid from the outset due to the inclusion in it of unfair contractual terms, the bank, in addition to the return of the money paid under the agreement and the payment of statutory interest for late payment from the time of the demand for payment, may, following such recognition, also demand additional benefits from the consumer.

By 31 December 2022, there were 2,989 individual lawsuits against the PZU Group relating to foreign currency mortgage loans (including 2,539 cases for contracts active at the time of filing the lawsuit) that were granted in previous years with the total litigation value of PLN 998 million (as of 31 December 2021: 1,623 cases, with the litigation value of PLN 470 million). The main cause of the litigation specified by plaintiffs pertains to challenging the provisions of the loan agreement as regards the application by the PZU Group of the exchange rates and results in claims to declare the loan agreements partially or fully invalid.

In 2022, the PZU Group received 580 unfavorable court judgments in cases filed by borrowers, including 97 final judgments, and 24 favorable judgments, including 5 final judgments (in 2021: 125 unfavorable court judgments, including 20 final judgments, and 11 favorable judgments, including 4 final judgments).

The calculation of the provision carried out as of 31 December 2022 was based on an estimate of the expected loss resulting from the possible materialization of legal risks. The estimate conducted includes the following key elements:

- total number of litigation cases – the PZU Group updated its forecasts of the expected number of future lawsuits using statistical methods and taking into account the observed upward trend in both the number of incoming lawsuits and the issuance of loan repayment history certificates (which have the character of a leading indicator for future lawsuits). The PZU Group estimates that the total number of lawsuits that have been, or will be, filed could be about 12,000, and the phenomenon of new lawsuits could be significant by the end of 2028. According to an external law firm, for index-linked loans originally granted by Pekao, the PZU Group assesses the likelihood of the contractual provisions being deemed abusive as negligible, since the indexation clause used was based on the average exchange rate of the National Bank of Poland, not Pekao's exchange rate table. As a result, no influx of lawsuits is expected for such contracts in the future, and no individual provision is made for existing lawsuits (5 units). At the same time, for contracts paid off 10 years ago or earlier (i.e., inactive at the end of 2012), the PZU Group accepts the possibility of successfully raising objections resulting in the dismissal of the claim, and also does not expect an influx of lawsuits for such contracts in the future. This is borne out by past practice: the scale of litigation involving the rest of the loan population is negligible. As a result, the entire forecast of future lawsuits relates to denominated loans active or fully repaid in the last 10 years;
- probability of losing a court case – according to the opinion of an external law firm, for denominated loans acquired by Pekao as a result of the acquisition (spin-off) of Bank BPH, the PZU Group estimates the probability of recognizing contractual provisions as abusive at a minimum of 95% (vs. a minimum of 90% at the end of 2021);
- possible financial implications – PZU Group accepts the following possible resolutions:
 - invalidating the entire foreign currency mortgage loan agreement as a result of recognizing the indexation clause as abusive – this outcome is considered the most likely (above 95%);
 - recognizing the clauses contained in the loan agreement as abusive clauses resulting in determining the loan balance in PLN and leaving the loan interest rate based on the SARON/LIBOR rate (the so-called currency conversion of a CHF loan agreement);
 - recognizing the indexation clause as abusive and replacing the bank's exchange rate table in it with the average NBP exchange rate;
 - dismissing the statement of claim.

The PZU Group has updated its expectations including the probability distribution of possible outcomes and the expected financial impact of losing the litigation, taking into account the statistics for the litigation cases currently pending. In particular, the share of invalidations of loan agreements in possible resolution scenarios exceeded 95% (versus 80% at the end of 2021). In addition, the PZU Group assumes the possibility of concluding out-of-court settlements with borrowers, resulting in the conversion of the loan to PLN. According to the approach taken, the settlement offer will be presented to borrowers with active contracts and in dispute with the PZU Group, and may include the option of recalculating the loan as if it had originally been granted in PLN (as proposed by the KNF Office's Chairman). The estimate of financial impact takes into account the expected propensity of borrowers to use settlements, depending on the ratio of the benefits of settlement to the potential benefit of continued litigation

Although the legal risk related to the foreign currency mortgage portfolio has been one of the key topics in the banking sector in recent years, the history of data regarding the scale of lawsuits (in particular in terms of final judgments) is not sufficient. All of the above means that the process of determining the level of the provision requires a number of expert assumptions based on professional judgment each time.

New rulings and the possible sectoral solutions which will appear in the Polish market for mortgage loans may have impact on the amount of the provision established by the PZU Group and necessitate a change of individual assumptions adopted in the calculations. In connection with this uncertainty it is possible that the provision amount will change in the future.

The tables below present the amounts of the provisions for individual court cases in which the PZU Group is a party and a portfolio provision for the remaining FX mortgage loans which are exposed to legal risk associated with the nature of these agreements.

Consolidated statement of financial position line items	31 December 2022	31 December 2021
Impairment losses for loan receivables from clients	1,824	516
individual provision	394	220
portfolio provision	1,430	296
Other provisions	479	132
individual provision	182	52
portfolio provision	297	80
Total	2,303	648

Consolidated profit and loss account line items	1 January - 31 December 2022	1 January - 31 December 2021
Movement in allowances for expected credit losses and impairment losses on financial instruments	(1,325)	(172)
Other operating expenses	(356)	(42)
Total	(1,681)	(214)

The main reasons for the increase in the level of the provision as of 31 December 2022 relative to 31 December 2021 are:

- an update of the expected number of litigation cases, rooted in the observed continuation of the growing trends of incoming litigation cases and issued certificates on loan repayment history, and taking into account the possible impact of changes in the legal environment, including the opinion of the CJEU Ombudsman General, on the propensity of borrowers to enter litigation, and
- an increase in the likelihood of possible negative dispute settlements, resulting from a more unfavorable line of case law for banks, in which the dominant and growing share of overall settlements is the cancellation of the loan agreement.

The PZU Group carried out a sensitivity analysis for the major assumptions of provision calculations, where a change of the level of individual parameters would have the following impact on the provision amount for the legal risk of foreign currency mortgage loans.

Parameter	Scenario	Impact on the amount of the provision 31 December 2022	Impact on the amount of the provision 31 December 2021
Number of cases brought to court	+10%	211	53
	-10%	(211)	(41)
Probability of losing the case	+5 p.p.	116	33
	-5 p.p.	(118)	(29)
Probability of the agreement invalidation scenario	+5 p.p.	76	29
	-5 p.p.	(67)	(25)

Provision for refunds to clients of increased mortgage loan margins before the mortgage is established

The provision was established in connection with the entry into force of the Act of 5 August 2022 amending the Act on Mortgage Loan and Supervision of Mortgage Loan Intermediaries and Agents and the Act amending the Act on Personal Income Tax, the Act on Corporate Income Tax and Certain Other Acts.

Provisions for guarantees and sureties given

This item includes provisions recognized by banks for the potential loss of economic benefits resulting from off-balance sheet exposures (e.g. granted guarantees or credit exposures).

Provision for penalties imposed by the Office of Competition and Consumer Protection

The amount of 28 million pertains to a penalty returned by the Office of Competition and Consumer Protection to Pekao. Due to the potential risk of outflow of resources in connection with this case, the PZU Group maintains a provision to cover this risk.

The amount of PLN 11 million pertains to the penalty imposed by the President of the Office of Competition and Consumer Protection as a result of the decision in which he deemed that s clause used by Pekao in annexes to agreements on the rules for setting foreign exchange rates is an impermissible contractual clause. Pekao appealed the decision of the UOKiK President to the Court of Competition and Consumer Protection and received a response from the UOKiK President, in which he requested that the appeal be dismissed in its entirety.

49. Deferred tax

49.1 Accounting policy

The level of deferred tax liabilities and assets is determined using the balance sheet method using the corporate income tax rates which are expected to be in effect when the asset or liability is realized, in accordance with the provisions of tax law in the countries of domicile of the individual PZU Group companies issued by the end of the reporting period.

For all of the consolidated companies participating in the Tax Group, deferred tax assets and liabilities are offset on the assumption that the Tax Group contract will be prolonged for subsequent periods, and therefore the period in which the reversal of temporary differences is expected is not analyzed for the purposes of this offsetting.

49.2 Estimates and assumptions

PZU Group companies have estimated their future taxable income in terms of the possibility to realize deductible temporary differences arising from tax losses incurred by these companies. As a result of these estimates, no deferred tax assets relating to unused tax loss were recognized.

49.3 Quantitative data

49.3.1. Deferred tax assets

Unrecognized deferred tax assets resulting from the tax loss according to legally permissible realization term	31 December 2022	31 December 2021
up to 1 year	13	13
1 to 5 years	1	18
over 5 years	34	6
term unlimited by law	2	2
Total	50	39

Movement in deferred tax assets in the year ended 31 December 2022	Beginning of the period	Changes recognized in profit or loss	Changes recognized in other comprehensive income	Other changes	End of the period
Loan receivables from clients	1,262	171	1	-	1,434
Bank commissions collected in advance	531	(97)	-	-	434
Liabilities to clients under deposits	11	127	-	-	138
Intangible assets – trademarks and client relations	(196)	(9)	-	-	(205)
Financial instruments	754	(802)	513	-	465
Real property	(40)	15	-	3	(22)
Accrued reinsurance income and expenses	22	(10)	-	-	12
Provisions for employee benefits	56	(6)	2	-	52
Provisions for bonuses	77	15	-	-	92
Other provisions and liabilities	563	113	-	-	676
Tax losses to be used in subsequent years	5	(2)	-	-	3
Tax allowance for activities conducted in a special economic zone	9	(3)	-	(2)	4
Provision for restructuring costs	4	(2)	-	-	2
Total deferred tax assets	3,058	(490)	516	1	3,085

Movement in deferred tax assets in the year ended 31 December 2021	Beginning of the period	Changes recognized in profit or loss	Changes recognized in other comprehensive income	Other changes	End of the period
Loan receivables from clients	1,301	(48)	9	-	1,262
Bank commissions collected in advance	598	(67)	-	-	531
Liabilities to clients under deposits	26	(15)	-	-	11
Intangible assets – trademarks and client relations	(199)	3	-	-	(196)
Financial instruments	100	(316)	970	-	754
Real property	(47)	9	-	(2)	(40)
Accrued reinsurance income and expenses	15	7	-	-	22
Provisions for employee benefits	79	(15)	(8)	-	56
Provisions for bonuses	55	22	-	-	77
Other provisions and liabilities	530	33	-	-	563
Tax losses to be used in subsequent years	37	(32)	-	-	5
Tax allowance for activities conducted in a special economic zone	-	-	-	9	9
Provision for restructuring costs	16	(12)	-	-	4
Total deferred tax assets	2,511	(431)	971	7	3,058

49.3.2. Deferred tax liability

Movement in deferred tax liabilities in the year ended 31 December 2022	Beginning of the period	Changes recognized in profit or loss	Changes recognized in other comprehensive income	Other changes	End of the period
Financial instruments	346	132	(153)	-	325
Subrogation receivables	14	(2)	-	-	12
Real property	156	35	-	(3)	188
Deferred acquisition costs	338	53	-	-	391
Accrued reinsurance income and expenses	(90)	(34)	-	-	(124)
Intangible assets – trademarks and customer relations	63	(20)	-	1	44
Provisions for employee benefits	(20)	8	(2)	-	(14)
Provision for bonuses	(62)	12	-	-	(50)
Liabilities due but not paid to natural persons (under mandate, agency contracts, etc.)	(77)	(6)	-	-	(83)
Other provisions and liabilities	(92)	(23)	-	-	(115)
Prevention fund	12	3	-	-	15
Equalization provision	120	6	-	-	126
Tax losses to be used in subsequent years	(24)	16	-	(2)	(10)
Other differences	122	4	-	-	126
Total deferred tax liabilities	806	184	(155)	(4)	831

Movement in deferred tax liabilities in the year ended 31 December 2021	Beginning of the period	Changes recognized in profit or loss	Changes recognized in other comprehensive income	Other changes	End of the period
Financial instruments	528	55	(237)	-	346
Subrogation receivables	13	1	-	-	14
Real property	121	37	-	(2)	156
Deferred acquisition costs	292	46	-	-	338
Accrued reinsurance income and expenses	(22)	(68)	-	-	(90)
Intangible assets – trademarks and customer relations	68	(5)	-	-	63
Provisions for employee benefits	(17)	(2)	(1)	-	(20)
Provision for bonuses	(52)	(10)	-	-	(62)
Liabilities due but not paid to natural persons (under mandate, agency contracts, etc.)	(72)	(5)	-	-	(77)
Other provisions and liabilities	(106)	14	-	-	(92)
Prevention fund	11	1	-	-	12
Equalization provision	111	9	-	-	120
Tax losses to be used in subsequent years	(19)	(5)	-	-	(24)
Other differences	93	29	-	-	122
Total deferred tax liabilities	949	97	(238)	(2)	806

50. Assets and liabilities held for sale

50.1 Accounting policy

Assets and liabilities or disposal groups are classified as held for sale if there is a plan to sell them and an active program of finding a buyer is in place.

Assets and liabilities held for sale or disposal groups are measured at the lower of their carrying amount and fair value less costs to sell.

50.2 Quantitative data

Assets held for sale by classification before transfer	31 December 2022	31 December 2021
Groups held for sale	302	297
Assets	335	325
Investment property	316	298
Receivables	4	7
Cash and cash equivalents	15	20
Liabilities related directly to assets classified as held for sale	33	28
Other liabilities	15	14
Deferred tax liability	18	14
Other assets held for sale	319	318
Property, plant and equipment	18	18
Investment property	301	300
Assets and groups of assets held for sale	654	643
Liabilities related directly to assets classified as held for sale	33	28

The "Investment property" line item and the "Groups held for sale" section presented mainly the properties held by real estate sector mutual funds as held for sale, since the expected investment horizon has been reached.

Data taken into account in the measurement of investment properties presented as held for sale are presented in section 10.2.1.2.

51. Leases

51.1 Accounting policy

PZU Group companies are parties to lease contracts both as lessors and as lessees.

An agreement is a lease or comprises a lease if it transfers the right to control the use of an identified asset for the given period in return for a fee.

51.1.1. PZU Group as the lessee

On the date when the leased asset is available for use, the PZU Group recognizes the right-of-use asset and the lease liability.

Pursuant to item 4 of IFRS 16, the PZU Group does not apply this standard to intangible assets.

The lease period is an irrevocable period of use of an asset, determined taking into consideration:

- the options of extending or shortening, if they are in principle certain;
- material investments in the leased item undertaken during the term of the agreement which are expected to bring significant economic benefits for the PZU Group company, on the basis of which decisions will be taken on extending or terminating the agreement;

- the costs associated with termination of the lease, such as costs of negotiation, costs of relocation, costs of search for different premises/property adequate to the company's business needs, termination penalty and costs associated with adaptation of the subject matter of the agreement being returned to a specific condition;
- the significance of the asset for the activity of the PZU Group company, considering the specialization of the asset, its location and availability of relevant alternative solutions;
- conditions associated with exercising the option (i.e. if the option can be exercised when one or more conditions have been satisfied) and the probability of fulfillment of such conditions.

Assessing the probability of exercise of the aforementioned options, the company takes into account all material facts and circumstances which constitute an economic incentive to exercise the option to extend the lease and or not to exercise the option to terminate the lease.

The PZU Group determines the lease period for agreements for an indefinite term taking into account the economic factors, the existing practice and the available information which may be helpful in determining the period of use of the asset. To determine the lease period, the PZU Group uses professional judgment. In particular, for the perpetual usufruct right to land, the lease period is determined as the time remaining from the date of implementation of IFRS 16 or from the date of purchase of the perpetual usufruct right to land (of acquired after 1 January 2019) until the date of expiry of such right.

On initial recognition:

- the lease liability is measured at the present value of the outstanding lease payments, including fixed lease payments less any applicable lease incentives, variable lease payments that depend on an index or rate, the amounts that the lessee expects to pay within the guaranteed residual value, the exercise price of the call option, if likely to be exercised, and penalties for terminating the lease if the option is available;
- right-of-use assets are measured at cost, which includes the initial lease liability amount, any lease payments paid on or before the commencement date, less any lease incentives received, all initial costs incurred by the lessee, and an estimate of the costs to be incurred in disassembling and removing the asset, renovating the site where it was located, if the lease contract so requires.

The PZU Group recognizes assets and liabilities in respect of lease at a net amount. The VAT amount is recognized in expenses of the current period.

Lease payments are discounted using the interest rate implicit in the lease, if it can be easily determined, or the lessee's marginal interest rate.

The lessee's marginal interest rate is determined on the basis of current valuations of financial instruments issued by PZU Group and other PZU Group entities, coming from an active market. If there are no such instruments, or there is no active market, the marginal interest rate is determined on the basis of valuations of the financial instruments issued by other entities with similar business profiles and credit risk level. For all contracts ending on the same date and with a fixed amount of monthly payments (this group includes most lease contracts in the PZU Group) a fixed contract discount rate has been calculated.

In subsequent periods:

- the right-of-use asset is measured using the cost less depreciation and impairment model or at fair value (in the case of assets being investment properties);
- the liability is measured at amortized cost.

Right-of-use assets are depreciated using the straight-line method from the lease commencement date to the earlier of the end of the useful life or the end of the lease period.

Right-of-use assets are recognized jointly with property, plant and equipment or investment property, respectively, while lease liabilities as financial liabilities.

Changes in lease payments (resulting from, among others, changes in the index, rate, lease period) are taken into account, updating the valuation of lease liabilities and an appropriate adjustment of the right-of-use assets. The lease period is updated in the case of:

- occurrence of a significant event or significant change in the circumstances which the PZU Group controls and as a result of which it is possible to assume with sufficient certainty that the PZU Group will exercise an option which has not been previously taken into consideration in the determination regarding the lease period, or that it will not exercise an option which has been previously taken into consideration in such determinations;

- change of the irrevocable period of lease or new determination of the lease period in the case of amendment of the agreement, if such change has not been recognized as a separate lease.

Short-term lease and low-value asset lease

The PZU Group does not recognize right-of-use assets for short-term leases and for leases for which the underlying asset has a low value. Low value assets were deemed to be assets with a value equal to or lower than PLN 20 thousand. In such a case the PZU Group recognizes lease payments as a cost in the consolidated profit and loss account during the lease period.

51.1.2. PZU Group as the lessor

On the date of commencement of the lease, the PZU Group classifies the given lease agreement as:

- finance lease – if substantially all of the risks and benefits following from the holding of the underlying asset are transferred or as
- operating lease – if the above conditions are not satisfied.

Classifying the given lease agreement, the PZU Group takes into account, among others, the fact whether the lease period constitutes a larger part of the economic useful life of the asset.

Finance lease

On the lease commencement date, the PZU Group recognizes the receivable in the amount of the net lease investment, i.e. the current value of minimum lease payments and unguaranteed residual value, if any, ascribed to the PZU Group. During the lease period the PZU Group recognizes interest income on the lease receivables.

Operating leases

Operating lease contracts apply mainly to properties.

Operating lease payments are recognized in the profit and loss account as revenue on a straight-line basis over the term of the lease.

51.2 Quantitative data

51.2.1. PZU Group as the lessor

51.2.1.1. Finance lease

Leasing investments	31 December 2022	31 December 2021
Undiscounted lease payments	17,228	15,029
Up to 1 year	6,055	5,179
From 1 year to 2 years	4,454	3,865
From 2 to 3 years	3,186	2,772
From 3 to 4 years	1,769	1,623
From 4 to 5 years	858	784
Over 5 years	906	806
Unrealized financial income	(2,256)	(1,158)
Discounted unguaranteed residual values	-	-
Net lease investments	14,972	13,871

51.2.1.2. Operating leases

Operating leases generally include investment property lease contracts. The following table presents future minimum lease payments under non-cancellable operating leases (undiscounted amounts).

Future minimum receivables under lease payments	31 December 2022	31 December 2021
Up to 1 year	305	217
From 1 year to 2 years	268	196
From 2 to 3 years	176	160
From 3 to 4 years	135	88
From 4 to 5 years	98	58
Over 5 years	179	192
Total future minimum receivables under lease payments	1,161	911

51.2.2. PZU Group as the lessee

Right-of-use assets carried as property, plant and equipment	31 December 2022	31 December 2021
Means of transport	77	91
Other property, plant and equipment and machinery	5	4
Real property	1,079	821
Total right-of-use assets	1,161	916

Movement in right-of-use assets used for own needs is presented together with the movement in property, plant and equipment in section 32.2.

Lease-related costs	1 January – 31 December 2022	1 January – 31 December 2021
Depreciation of right-of-use assets	311	293
Means of transport	17	16
Other property, plant and equipment	1	1
Real property	293	276
Interest on lease liabilities	46	23
Short-term lease-related costs	94	97
Low-value asset lease-related costs	1	1
Costs of variable lease payments not carried in valuation of lease liabilities	-	-

52. Assets securing receivables, liabilities and contingent liabilities

Financial assets pledged as collateral for liabilities and contingent liabilities	31 December 2022	31 December 2021
Carrying amount of financial assets pledged as collateral for liabilities	13,267	12,133
Repurchase transactions	931	1,205
Coverage of the Guaranteed Funds Protection Fund for the Bank Guarantee Fund	962	1,027
Coverage of liabilities to be paid to the guarantee fund at the Bank Guarantee Fund	415	275
Coverage of liabilities to be paid to the resolution fund (BFG)	739	489
Lombard and technical credit	6,483	5,481
Other loans	317	431
Issue of covered bonds	1,262	1,402
Coverage of the Settlement Guarantee Fund for the National Depository for Securities	36	28
Derivative transactions	2,094	1,756
Blockage of assets in connection with the agreement on the technical credit limit in the Clearing House – Derivative transactions	28	39
Carrying amount of financial assets pledged as collateral for contingent liabilities	-	-
Financial assets pledged as collateral for liabilities and contingent liabilities, total	13,267	12,133

53. Contingent assets and liabilities

Contingent assets and liabilities	31 December 2022	31 December 2021
Contingent assets, including:	6	6
- guarantees and sureties received	6	6
Contingent liabilities	80,676	68,948
- for renewable limits in settlement accounts and credit cards	4,829	4,813
- for loans in tranches	53,634	41,017
- guarantees and sureties given	8,521	9,531
- disputed insurance claims	933	785
- other disputed claims	187	190
- other, including:	12,572	12,612
- guaranteeing securities issues	4,158	5,240
- factoring	7,192	5,863
- intra-day limit	449	424
- letters of credit and commitment letters	688	947
- other	85	138

54. Offsetting financial assets and financial liabilities

54.1 Accounting policy

The offsetting agreements entered into by the Group include:

- International Swaps and Derivatives Association (ISDA) Master Agreements and other master agreements pertaining to derivatives;
- Global Master Repurchase Agreement (GMRA) pertaining to securities purchase/sale and repurchase transactions.

The offsetting agreements entered into by the PZU Group do not satisfy the offsetting criteria in the statement of financial position. For the provisions of such agreements provide for the right to offset the recognized amounts which is exercisable only in the case of occurrence of a specific event (breach of the agreement).

The PZU Group received and submitted collateral in the form of margins and liquid securities for transactions on derivatives.

These collaterals are established on standard industry terms. Collaterals in the form of margin follow from, e.g. the Credit Support Annex (CSA) – constituting an annex to ISDA master agreements.

54.2 Quantitative data

The disclosures in the tables below apply to financial assets and liabilities that are subject to enforceable netting master agreements or similar agreements, irrespective of whether they are set off in the statement of financial position.

Financial assets and liabilities subject to offset, if any	31 December 2022	31 December 2021
Financial assets		
Financial derivatives		
Carrying amount of the items from the statement of financial position	16,197	8,328
Carrying amount of the items not subject to offset, if any	277	291
Net carrying amount – subject to offset, if any	15,920	8,037
Potential offset amounts	15,923	7,560
– financial instruments (includes received collateral on securities)	14,848	6,788
– received cash collateral	1,075	772
Net value	(3)	477
Financial liabilities		
Financial derivatives		
Carrying amount of the items from the statement of financial position	20,957	11,880
Carrying amount of the items not subject to offset, if any	458	519
Net carrying amount – subject to offset, if any	20,499	11,361
Potential offset amounts	18,865	9,996
– financial instruments (includes received collateral on securities)	14,891	6,969
– received cash collateral	3,974	3,027
Net value	1,634	1,365

55. Notes to the consolidated cash flow statement

Movement in liabilities attributable to financial activities in the period ended 31 December 2022	Beginning of the period	Changes resulting from cash flows	Interest accruals and payments as well as settlements of discount and premium	Foreign exchange differences	Change in the composition of the Group	Other changes	End of the period
Loans received	4,658	581	4	28	-	-	5,271
Liabilities on the issue of debt securities	5,940	5,047	(1)	13	-	91	11,090
Bonds	4,154	(673)	(6)	12	-	1	3,488
Certificates of deposit	695	5,886	5	(1)	-	61	6,646
Covered bonds	1,091	(166)	-	2	-	29	956
Subordinated liabilities	6,274	(319)	230	(1)	-	-	6,184
Liabilities on account of repurchase transactions	1,207	(321)	123	-	-	(78)	931
Lease liabilities	992	(296)	291	44	5	260	1,296
Total	19,071	4,692	647	84	5	273	24,772

Movement in liabilities attributable to financial activities in the period ended 31 December 2021	Beginning of the period	Changes resulting from cash flows	Interest accruals and payments as well as settlements of discount and premium	Foreign exchange differences	Other changes	End of the period
Loans received	6,439	(1,779)	1	(10)	7	4,658
Liabilities on the issue of debt securities	7,532	(1,610)	6	10	2	5,940
Bonds	4,597	(457)	1	11	2	4,154
Certificates of deposit	1,611	(918)	6	-	(4)	695
Covered bonds	1,324	(235)	(1)	(1)	4	1,091
Subordinated liabilities	6,679	(500)	95	-	-	6,274
Liabilities on account of repurchase transactions	1,154	54	2	-	(3)	1,207
Lease liabilities	1,064	(292)	22	-	198	992
Total	22,868	(4,127)	126	-	204	19,071

56. Disputes

The PZU Group entities participate in a number of litigations, arbitration disputes and administrative proceedings. Typical litigations involving the PZU Group companies include disputes pertaining to concluded insurance contracts, foreign currency loan agreements, disputes concerning labor relationships and disputes relating to contractual obligations. Typical administrative proceedings involving the PZU Group companies include proceedings related to the possession of real properties. Such proceedings and litigation are usually of a typical and repetitive nature and usually no particular case is of material importance to the PZU Group.

The majority of disputes involving the PZU Group companies concerned four companies: PZU, PZU Życie, Pekao and Alior Bank.

Estimates of the provision amounts for individual cases take into account all information available on the date of signing the consolidated financial statements, however their value may change in the future. The insurance company takes disputed claims into account in the process of establishing technical provisions for known losses, considering the probability of an unfavorable outcome of the dispute and estimating the probable awarded amount.

As at 31 December 2022, the total value of the disputes in all 265,937 cases (as at 31 December 2021: 284,223 cases) pending before courts, arbitration bodies and public administration authorities in which PZU Group entities take part, was PLN 9,033 million (as at 31 December 2021: PLN 8,516 million). This amount included PLN 5,586 million (as at 31 December 2021: PLN 4,723 million) relates to liabilities, and PLN 3,447 million (as at Friday, December 31, 2021: PLN 3,793 million) of accounts receivable of PZU Group companies.

In 2022 and by the date of signing the consolidated financial statements, the PZU Group companies were not involved in any proceedings conducted before a court, an arbitration body or a public administration authority which concerned any liabilities or receivables of PZU or any of its direct or indirect subsidiaries the unit value of which would be material, save for the issues described in the sections below.

56.1 Resolutions of the Ordinary Shareholder Meeting of PZU to distribute the profit earned in the financial year 2006

On 30 July 2007, an action was brought by Manchester Securities Corporation (“MSC”) with its registered office in New York against PZU to repeal Resolution No. 8/2007 adopted by the Company’s Ordinary Shareholder Meeting on 30 June 2007 to distribute PZU’s profit for the financial year 2006 as contradicting good practices and aimed at harming the plaintiff as a shareholder of PZU.

The challenged resolution of the Ordinary Shareholder Meeting of PZU distributed the 2006 net profit of PLN 3,281 million as follows:

- PLN 3,261 million was transferred to supplementary capital;

- PLN 20 million was transferred to the Company Social Benefit Fund.

In its judgment of 22 January 2010, the Regional Court in Warsaw repealed the aforementioned resolution adopted by PZU's Ordinary Shareholder Meeting in its entirety. PZU has used all the available appeal measures, including a cassation appeal to the Supreme Court which, on 27 March 2013, dismissed the cassation appeal. The judgment is final and non-appealable.

PZU believes that repealing the aforementioned resolution of the PZU's Ordinary Shareholder Meeting will not give rise to shareholders' claim for a dividend payout by PZU.

As the judgment repealing resolution no. 8/2007 became final, on 30 May 2012, Ordinary Shareholder Meeting of PZU adopted a resolution to distribute the profit for the financial year 2006 in a manner that reflects the distribution of profit in the repealed resolution no. 8/2007. MSC filed an objection against the resolution of 30 May 2012 and the objection was recorded in the minutes.

On 20 August 2012, a copy of a statement of claim filed by MSC with the Regional Court in Warsaw was delivered to PZU. In the statement of claim, the Manchester Securities Corporation demanded that the resolution on the distribution of profit for the financial year 2006 adopted on 30 May 2012 by the PZU Ordinary Shareholder Meeting be repealed. According to the plaintiff, the value of the litigation is PLN 5 million. PZU then submitted a statement of defense requesting to dismiss the statement of claim in its entirety.

On 17 December 2013, the Regional Court passed a judgment in which it accepted the claim in its entirety and awarded the costs of proceedings from PZU to MSC. On 4 March 2014, PZU filed an appeal against the above judgment, contesting it in its entirety. On 11 February 2015, the Appellate Court in Warsaw handed down a judgment that changed the judgment of the Regional Court of 17 December 2013 in its entirety, dismissed MSC's claim and charged MSC with the court expenses. The Appellate Court's judgment is final and non-appealable. MSC challenged the Appellate Court's judgment in its entirety in a cassation appeal of 9 June 2015. PZU filed its reply to the cassation appeal. By decision of 19 April 2016, the Supreme Court refused to review MSC's cassation appeal. According to the provisions of the Code of Civil Procedure, the Supreme Court's ruling is final non-appealable and ends the proceedings in the case.

In the meantime on 16 December 2014, MSC summoned PZU to pay PLN 265 million as compensation in connection with repealing Resolution No. 8/2007 adopted by the PZU Ordinary Shareholder Meeting on 30 June 2007 to distribute PZU's profit for the financial year 2006. PZU refused to effect the performance on account of its groundlessness.

On 23 September 2015, a copy of the statement of claim with attachments was delivered to PZU in the case launched by MSC against PZU for payment of PLN 169 million with statutory interest from 2 January 2015 to the date of payment and the costs of the trial. The lawsuit includes a claim for damages for depriving MSC and J.P. Morgan (MSC acquired the claim from J.P.. Morgan), as minority shareholders of PZU, a share in the profit for the 2006 financial year, following the adoption of Resolution No. 8/2007 by the PZU Ordinary Shareholder Meeting on 30 June 2007. The case is pending before the Regional Court in Warsaw. On 18 December 2015, PZU's attorney submitted a statement of defense, requesting to dismiss the claim in its entirety. On 1 April 2016, MSC filed a pleading in which it responded to PZU's assertions, allegations and petitions and raised new arguments in the case. On 30 June 2016, PZU filed a response to MSC's most recent pleading along with requests for evidence. In its decision of 21 July 2016, the Court referred the case to a mediation procedure, to which PZU did not agree. In subsequent court sessions, evidentiary hearings have taken place. On 6 April 2022, the Regional Court in Warsaw issued a decision admitting evidence in the form of an opinion of a scientific institute to determine the amount of the damage sustained by MSC and J.P Morgan, in the form of loss of profit, as a result of the adoption of Resolution No. 8/2007 by the PZU Ordinary Shareholder Meeting on 30 June 2007, excluding from distribution the profit for the 2006 financial year and the non-payment of this profit in 2007.

The Management Board of PZU believes that MSC's claims are groundless. As a result, as at 31 December 2022, no changes were made to the presentation of PZU's equity that could potentially stem from the repeal of the resolution 8/2007 adopted by PZU's Ordinary Shareholder Meeting on distribution of profit for the financial year 2006, including the line items "Supplementary capital" and "Retained earnings (losses)", and the funds in the Company Social Benefit Fund were not adjusted.

Other demands for payment pertaining to the distribution of PZU's profit for the 2006 financial year

On 13 November 2018 the Regional Court in Warsaw served a copy of the statement of claim lodged by Wspólna Reprezentacja SA in restructuring, which pertained to a claim against PZU for payment of PLN 34 million with statutory interest from 1 October 2015 to the payment date with court expenses. The claim comprises a claim for payment of damages for depriving the shareholders of their share of profits for the 2006 financial year. The plaintiff claims that the claims for damages were transferred by the

shareholders to the plaintiff based on mandate agreements together with a fiduciary transfer of receivables and the claim pursued by the statement of claim is the total damage caused to the shareholders. PZU does not accept the claims as unjustified and submitted its statement of defense, requesting the claim to be dismissed in its entirety. PZU did not consent to mediation. In subsequent court sessions, evidentiary hearings have taken place.

56.2 Notification of PZU's claim to the bankruptcy estate of companies of the PBG Group

PZU is a creditor of PBG SA ("PBG") and Hydrobudowa Polska SA ("Hydrobudowa"), both companies with registered offices in Wysogotowo near Poznań, on account of insurance guarantees (contractual guarantees) issued and paid out.

In 2012, bankruptcy proceedings were initiated against PBG and Hydrobudowa. On 21 September 2012, PZU joined the proceedings by notifying its claims to the bankruptcy estate of the two companies.

PBG and Hydrobudowa belong to the same group in which PBG is the parent company. The two companies provided sureties for each other's liabilities. As a consequence, all claims submitted against the bankruptcy estate of Hydrobudowa in the amount of PLN 101 million were concurrently submitted against the bankruptcy estate of PBG.

PBG's bankruptcy proceedings ended on 20 July 2016 with a final decision of the Bankruptcy Court.

The first list of claims presented by Hydrobudowa's trustee in bankruptcy to the judge commissioner contained PZU SA's claims in the amount of PLN 16 million and the fourth supplementary list of claims contained PZU SA's claims in the amount of PLN 16 million. Accordingly, the total value of claims pursued by PZU on this account was PLN 32 million. In respect of claims for the amount of over PLN 66 million, on 24 October 2018 PZU filed an objection to the judge commissioner against the refusal to accept the submitted claim. With the decision of 23 January 2020 the Court accepted PZU's objection and increased PZU's claim on the fourth supplementary list of claims to PLN 83 million. On 8 September 2022, the trustee in bankruptcy requested a statement regarding the possible disposal of the reported claim and an indication of the amount of repayments to satisfy it. PZU provided the relevant statement. The final list of claims submitted against the bankruptcy estate of Hydrobudowa has not been determined yet. Bankruptcy proceedings against Hydrobudowa are pending and the determination of the final list of claims is merely an initial step in these proceedings that precedes the drafting of the distribution plan (after the liquidation of the bankruptcy estate).

56.3 Lawsuits against Alior Bank

Alior Bank is a defendant in one class action case (suit was filed on 5 March 2018) brought by an individual representing a group of 84 natural and legal persons and 4 individual cases to rule Alior Bank's liability for a loss caused by the improper performance of Alior Bank's disclosure obligations to clients and improper performance of agreements to provide services of accepting and forwarding purchase or sale orders of investment certificates of mutual funds managed previously by Fincrea TFI SA and currently by Raiffeisen Bank International AG (Spółka Akcyjna) Branch in Poland (Funds). With the decision of 27 September 2019 the court resolved to examine the case in a group procedure. By letter dated 15 July 2021, the claim was expanded to include a group of another 283 people. At the same time, declarations of withdrawal from the group were filed by 14 persons. The value of the subject matter of the extended lawsuit as of 15 July 2021, and based on the pleading on the extension of the lawsuit, was PLN 104 million, with the final value of the subject matter of the lawsuit to be determined after the Regional Court in Warsaw issues an order determining the composition of the group. The lawsuits were filed to establish liability (not for payment, i.e. damages), so the PZU Group does not expect any cash outflow from these proceedings other than litigation costs, which it estimates at PLN 600 thousand.

Alior Bank is also a defendant in 102 cases brought by purchasers of the Funds' investment certificates for payment (damages). The total value of the subject matter of litigation in these cases is PLN 34 million.

According to the PZU Group, each payment case requires an individual approach. The final value of the investment certificates will be determined upon completion of the liquidation. After analysis and selection of cases, those were singled out in which certain risk factors justify the establishment of a provision. Its calculation also took into account a possible increase in the scale of lawsuits. The total value of the provision as of 31 December 2022 was PLN 20 million.

56.4 KNF's proceedings to impose a fine on Alior Bank

On 6 August 2019, KNF issued a decision pursuant to Article 167 sec. 2 item 1 in conjunction with Article 167(1)(1) of the Act on Trading in Financial Instruments imposing a fine of PLN 10 million on Alior Bank (Alior Bank has paid the fine). The proceedings concerned the operation of Alior Bank and its Brokerage House in terms of the distribution of investment certificates of funds previously managed by Fincrea TFI SA and currently by Raiffeisen Bank International AG (Spółka Akcyjna), Poland Branch. After reexamining the case (at Alior Bank's request), on 3 December 2019, KNF upheld the original decision, which Alior Bank challenged on 3 January 2020 with the Voivodship Administrative Court in Warsaw. On 17 June 2020, the Voivodship Administrative Court in Warsaw issued a judgment repealing the 3 December 2019 decision of the Polish Financial Supervision Authority, which upheld the earlier 6 August 2019 decision of the Polish Financial Supervision Authority, and discontinued the proceedings conducted by the KNF in the case. KNF lodged a cassation appeal to the Supreme Court of Administration. As at the date of signing the consolidated financial statements, the Supreme Court of Administration did not review the appeal.

57. Related party transactions

57.1 Key management

The PZU Management Board Members and PZU Group Directors are assumed to be the key management of the PZU Group.

In 2022 and in 2021, the PZU Group companies did not grant any loans or similar benefits to members of their key management.

The following tables present the compensation of PZU's key management (members of the PZU Management Board and senior management). The figures are presented in thousands of PLN.

Compensation and other short-term employee benefits paid by PZU	1 January – 31 December 2022		1 January – 31 December 2021	
		including part of variable compensation for 2017-2021		including part of variable compensation for 2017-2020
Management Board	15,462	7,084	14,332	5,849
Beata Kozłowska-Chyła	1,823	712	1,479	465
Ernest Bejda	1,744	670	1,350	370
Małgorzata Kot	1,701	626	1,153	173
Krzysztof Kozłowski	1,317	243	405	-
Tomasz Kulik	2,036	962	1,788	808
Piotr Nowak	731	-	n/a	n/a
Maciej Rapkiewicz	2,036	962	1,788	808
Małgorzata Sadurska	2,050	976	1,801	822
Krzysztof Szypuła	717	626	1,153	173
Marcin Eckert	466	466	1,316 ¹⁾	645
Aleksandra Agatowska	38	38	94	94
Adam Brzozowski	154	154	711 ²⁾	454
Elżbieta Häuser-Schöneich	154	154	711 ³⁾	454
Roger Hodgkiss	179	179	179	179
Paweł Surówka	316	316	404	404

Compensation and other short-term employee benefits paid by PZU	1 January – 31 December 2022		1 January – 31 December 2021	
High-level managers (PZU Group Directors)	3,288	1,286	2,370	1,180
Aleksandra Agatowska	799	354	673	267
Andrzej Jaworski	308	-	n/a	n/a
Bartłomiej Litwińczuk	804	375	705	313
Dorota Macieja	804	375	705	313
Krzysztof Szypuła	391	-	n/a	n/a
Małgorzata Kot	20	20	90	90
Roman Pałac	103	103	138	138
Tomasz Karusewicz	59	59	59	59

¹⁾ Including a severance pay of PLN 246 thousand.

²⁾ Including a non-competition fee of PLN 257 thousand.

³⁾ Including a non-competition fee of PLN 257 thousand.

In 2022, PZU Management Board Members were paid part of the benefits for 2017–2021 under the variable compensation system. The payout of the remaining part of the bonus for 2019–2022 may be made in subsequent periods. For these benefits, the PZU Group has a liability with the total amount of PLN 19,948 thousand as of 31 December 2022 (including the employer's burdens, as of 31 December 2021: PLN 17,897 thousand).

Compensation and other short-term employee benefits paid by other PZU Group entities	1 January – 31 December 2022 (PLN 000s)		1 January – 31 December 2021 (PLN 000s)	
		including part of variable compensation for 2017–2021		including part of variable compensation for 2017–2020
Management Board, of which:	27	27	119	119
Małgorzata Kot	27	27	119	119
High-level managers (PZU Group Directors), including:	4,897	1,892	3,325	1,540
Aleksandra Agatowska	1,194	527	980	370
Andrzej Jaworski	462	-	n/a	n/a
Bartłomiej Litwińczuk	1,203	558	1,024	437
Dorota Macieja	1,203	558	1,024	437
Krzysztof Szypuła	586	-	n/a	n/a
Roman Pałac	157	157	205	204
Tomasz Karusewicz	92	92	92	92

Total estimated value of non-cash benefits granted by PZU and PZU's subsidiaries	1 January – 31 December 2022 (PLN 000s)	1 January – 31 December 2021 (PLN 000s)
Management Board, of which:	1,785	1,482
Beata Kozłowska-Chyła	265	218
Ernest Bejda	193	155
Małgorzata Kot	224	189
Krzysztof Kozłowski	189	44
Tomasz Kulik	273	178
Piotr Nowak	110	n/a
Maciej Rapkiewicz	211	185
Małgorzata Sadurska	312	217
Krzysztof Szypuła	8	136
Marcin Eckert	n/a	160
High-level managers (PZU Group Directors), including:	942	587
Aleksandra Agatowska	270	214
Andrzej Jaworski	74	n/a
Bartłomiej Litwińczuk	238	185
Dorota Macieja	200	173
Krzysztof Szypuła	160	n/a
Tomasz Karusewicz	n/a	15 ¹⁾

¹⁾ Benefits brought forward from PZU and PZU Życie.

57.2 The PZU Supervisory Board

The tables show the remuneration of PZU Supervisory Board members. The figures are presented in thousands of PLN.

Remunerations and other short-term employee benefits paid to the Supervisory Board by PZU and PZU subsidiaries	1 January – 31 December 2022 (PLN 000s)	1 January – 31 December 2021 (PLN 000s)
Robert Jastrzębski	224	203
Paweł Górecki	224	203
Robert Śnitko	224	203
Marcin Chłudziński	205	187
Agata Górnicka	205	187
Elżbieta Mączyńska-Ziemacka	205	187
Krzysztof Opolski	224	203
Radosław Sierpiński	241 ¹⁾	41
Piotr Wachowiak	68	n/a
Józef Wierzbowski	205	187
Maciej Zaborowski	205	187
Paweł Mucha	151	112
Maciej Łopiński	n/a	89
Tomasz Kuczur	n/a	145
Total	2,381	2,134

¹⁾ including PLN 36 thousand for serving as a member of the Scientific Council at PZU Zdrowie SA.

57.3 Related party transactions concluded by PZU or subsidiaries on non-arm's length conditions

In 2022, neither PZU nor its subsidiaries executed any transaction with their related parties which were of material significance individually or collectively and were executed on non-arm's length conditions.

57.4 Other related party transactions

Balances and turnovers resulting from commercial transactions between the PZU Group and related parties	1 January – 31 December 2022 and as at 31 December 2022		1 January – 31 December 2021 and as at 31 December 2021	
	Key management	Other related parties ¹⁾	Key management	Other related parties ¹⁾
Gross written premium				
in non-life insurance	-	2	-	3
in life insurance (including volumes in investment contracts)	-	-	-	-
Other income	-	1	-	2
Costs	-	44	-	22
Investment financial assets	-	-	-	3
Loan receivables from clients	-	-	1	-
Receivables	-	1	-	-
Liabilities under deposits	4	41	2	14
Other liabilities	-	4	-	6
Contingent assets	-	-	-	-
Contingent liabilities	-	2	-	-

¹⁾ Associates measured by the equity method.

At the stage of acquisition of the shares in Alior Bank and Pekao, respectively, PZU filed with KNF the Representations on Liabilities referred to in Article 25h(3) of the Banking Law, according to which, acting as a strategic investor, it should ensure, without limitation, that:

- The Banks will be managed in such a way as to maintain at all times liquidity, own funds and solvency ratios on a stable level as required by the law, guaranteeing the Banks' ability to satisfy their liabilities;
- appropriate capital support without undue delay in the event of a decline or threat of decline of capital adequacy ratios or liquidity of the Banks below the level required by the law and regulations and recommendations of Polish banking regulatory authorities. Each support for the Banks, however, requires PZU's analysis aimed to maintain the trust to PZU, through maintaining, even in a crisis situation, a high level of solvency of PZU and the PZU Group as a whole;
- as part of the powers vested in PZU as a shareholder, all decisions pertaining to dividend payout and reinvestment of the Banks' profits will take into account the Banks' development needs and stability and safety of the funds deposited in the Banks by their clients. In particular, in a situation when the Banks' liquidity or capital position required by law or recommendations of competent banking regulatory authorities for the banking sector in Poland are at threat, no dividend will be paid out, and retained earnings will be allocated for increasing the Banks' own funds.

57.5 Transactions with State Treasury's related parties

Transactions with subsidiaries, joint ventures and associates of the State Treasury were predominantly non-life insurance agreements, life insurance agreements and investment contracts and banking services. Such transactions are concluded and settled on terms and conditions available to customers, who are not related parties. Receivables from and liabilities to parties related to the State Treasury under insurance contracts are usually short-term.

58. Headcount

The following table presents average headcount (in FTEs) in PZU Group companies.

Item	1 January – 31 December 2022	1 January – 31 December 2021
Management Boards (number of persons at the end of the reporting period)	149	143
Management	3,610	3,705
Other employees	34,520	35,903
Total	38,279	39,751

59. Other information

59.1 Audit fee payable to the audit firm auditing the financial statements

The table below presents the amounts due to the PZU Group's audit firm (KPMG Audyt sp. z ograniczoną odpowiedzialnością sp. k., "KPMG Audyt", and members of the KPMG network) for the audit of financial statements of the consolidated PZU Group companies performed by KPMG, paid or payable for the period, plus VAT, determined in accordance with the accrual principle.

Item	1 January – 31 December 2022 (PLN 000s)	1 January – 31 December 2021 (PLN 000s)
Audit of financial statements	10,487	9,345
Other assurance services	6,383	5,718
Total	16,870	15,063

On 18 February 2014, the PZU Supervisory Board selected KPMG Audyt with its registered office in Warsaw, ul. Inflancka 4A, 00-189 Warsaw, entered by the National Chamber of Statutory Auditors in the list of audit firms under no. 3546 as an entity auditing financial statements for the years 2014-2016, and on 27 April 2017, the PZU Supervisory Board exercised the option of extending this cooperation to include the years 2017-2018. On 23 May 2019, after KNF gave a permit to PZU to extend for another two years the maximum period for the engagement for KPMG Audyt to audit PZU's standalone and consolidated financial statements, the PZU Supervisory Board made the decision to select KPMG Audyt again as the audit firm to audit the 2019-2020 financial statements.

In connection with Article 49 of the Act of 31 March 2020 amending the Act on special solutions connected with preventing, counteracting and combating COVID-19, other infectious diseases and crises caused by them and certain other acts ("Act"), which extended the maximum period of uninterrupted engagement to carry out statutory audit to ten years by abolishing the limit set forth in Article 134 sec. 1 of the Act of 11 May 2017 on Statutory Auditors, Audit Firms and Public Supervision, on 28 May 2020, the PZU Supervisory Board gave its consent to renew the engagement for KPMG Audyt for reviews and audits of the standalone financial statements of PZU and the consolidated financial statements of the PZU Group for years 2021-2022 with an extension option to 2023. On 7 April 2021, the PZU Supervisory Board agreed to exercise the option and extend the order.

To enable performance of the work described above, relevant annexes to the previously signed agreements were concluded.

The existing cooperation with KPMG Audyt, pertaining to the reviews and audits of the standalone financial statements of PZU and consolidated financial statements of the PZU Group has continued without interruption since 2014.

59.2 Granting of sureties or guarantees for loans or borrowings by PZU or its subsidiaries

In 2022 and 2021 neither PZU nor its subsidiaries issued any sureties for loans or borrowings, or any guarantees - jointly to a single entity or its subsidiary, if the total amount of the existing sureties or guarantees would be material.

59.3 Inspections by the KNF Office

59.3.1. PZU

During the period from 27 July to 25 September 2020 KNF conducted an inspection of PZU's operations and assets in the claims handling area. On 7 January 2021, PZU received a recommendation to refrain from breaching the interests of parties entitled to indemnification under motor TPL insurance, consisting in applying in the calculation of the indemnification using the cost estimate method out-of-date, unreliable data on the man-hour rates in the car repair market that do not match the actual repair costs from the place of residence, seat or the injured party or the place of repair of the vehicle. On 19 February 2021, PZU informed KNF about implementing the recommendations and, on 19 March 2021 provided KNF, on its request, with additional documents and explanations pertaining to the implementation of the recommendation. On 19 April 2021, KNF summoned PZU to present additional documents and explanations, deciding that the evidence presented earlier had not allowed it to consider the recommendation satisfied. On 30 April 2021, PZU provided additional explanations and documents. KNF set the requirements and dates for providing the evidence of implementation. On 7 December 2021, PZU submitted a report on the implementation of the recommendation.

On 28 January 2022, KNF asked for additional clarification and documents, which were provided by PZU on 14 February 2022. On 25 March 2022, KNF submitted a letter stating that the evidence submitted by PZU was insufficient to conclude that the recommendation had been implemented. On 8 April 2022, PZU sent a response to KNF, supplementing the documentation on the implementation of the recommendation. Following KNF's call of 10 June 2022, PZU provided additional clarification on 24 June 2022, and on 21 July 2022, a meeting was held between PZU and KNF representatives to discuss the process of implementing the recommendation. On 29 July, 30 September and 14 October 2022, PZU submitted additional documentation and explanations to KNF.

During the period from 11 January to 10 March 2022 KNF conducted an inspection of PZU's operations and assets in the solvency capital requirement area. On 4 April 2022, PZU received the inspection report, to which it submitted objections, additional explanations and documents on 15 April 2022. On 8 June 2022, PZU received 2 recommendations after the inspection, which will be implemented starting with reports prepared as of 31 December 2022. On 6 February 2023, PZU reported that the recommendations had been implemented.

59.3.2. PZU Życie

In the period from 22 August to 21 October 2022, KNF inspected PZU Życie's compliance with the law in terms of the use of insurance agents and agents offering supplementary insurance. On 22 December 2022, PZU Życie submitted comments on the KNF's protocol after the 13 December 2022 inspection. Following the KNF's 4 January 2023 response, PZU Życie provided additional clarification on 20 January, 22 and 23 February 2023. On 20 March 2023, PZU Życie received a recommendation on PZU Życie's supervision of agent activities in the process of determining client needs and requirements. The deadline for implementing the recommendation is 31 December 2023.

In the period from 10 January to 10 March 2023 KNF carried out an inspection in PZU Życie regarding the preparation of financial statements for solvency purposes and the valuation of assets and liabilities for solvency purposes. Until the date of signing the consolidated financial statements, PZU Życie did not receive an inspection report.

59.4 Tax liability in Sweden

PZU Finance AB, a PZU subsidiary, issued 5-year bonds in the period from 2014 to 2015, with the par value of EUR 850 million, which matured in July 2019. Proceeds from the issue were forwarded to PZU in the form of two loans for the total amount of EUR 850 million. Payments under the loans matched the payments under bonds in terms of the payment date and amount. PZU repaid loans to PZU Finance AB on 28 June 2019.

In 2018, in connection with concerns regarding taxation under the Swedish Conversion Act (2000:46) of the foreign exchange differences in the situation where Euro is a reporting currency, PZU Finance AB applied for an individual tax ruling to the Swedish Tax Interpretation Board (Skatterättsnämnden). On 13 March 2019, PZU Finance AB received a ruling under which the foreign

exchange differences arising on repayment of the loan should be subject to taxation, while the FX differences arising on repayment of the bonds are not subject to taxation. In the PZU Group's opinion, the Board's interpretation would mean that a different approach is applied in Sweden to companies reporting in euros than to companies reporting in Swedish kronor, which would be inconsistent with the assumptions of Article 63 of the Treaty on the Functioning of the European Union (TFEU) on the need to ensure the free movement of capital in the European Union or Articles 49 and 54 TFEU on the freedom of establishment.

On 3 April 2019, PZU Finance AB appealed against an individual tax ruling issued by the Swedish Tax Rulings Board to the Supreme Court of Administration (Högsta förvaltningsdomstolen). On 4 May 2020, the Supreme Administrative Court rejected the petition submitted by PZU Finance AB and simultaneously repealed the individual tax ruling in question and, having found that sufficient grounds for the issue of an individual tax ruling had not been demonstrated and thus the ruling should not be issued.

At the same time, on 27 August 2020, PZU Finance AB submitted a tax return as part of the disclosure procedure for 2019, according to which it presented the above situation and assumed in the calculation of the tax liability that the foreign exchange differences on account of repayment of the bond constitute tax-deductible expenses. On 22 December 2020, PZU Finance AB received the tax decision from the tax office confirming that the tax was calculated correctly. The decision was not final. Due to the pursuit of the goals for which the company was established, on 4 May 2021, the Shareholder Meeting decided to commence the liquidation procedure of PZU Finance AB. On 23 June 2021, PZU Finance AB received a preliminary decision, and on 21 December 2021 a final negative decision of the tax office regarding the adjustment of its tax settlement for 2019. Accordingly, the PZU Group recognized, as at 31 December 2021, a current income tax liability of PLN 72 million (SEK 159 million). On 21 January 2022, PZU made a payment of SEK 159 million (SEK 155 million of the base amount and SEK 4 million of interest due) directly to the Swedish tax authority. On 10 November 2022, taking advantage of the available path of appeal against the tax decision PZU Finance AB filed a suit with the Stockholm Administrative Court regarding repeated determination of the tax for 2019.

59.5 Pekao and Alior Bank joining the protection scheme

By virtue of the Act of 7 April 2022 amending the Act on Covered Bonds and Mortgage Banks and Certain Other Acts, the possibility of establishing a protection system was introduced into the Polish legal system. A protection system may be established voluntarily by banks operating as joint stock companies, on the basis of a protection system agreement that will regulate the extent of the protection system participant's liability for obligations arising from participation in the system. The goal of the protection system is:

- ensuring the liquidity and solvency of banks-participants under the terms and to the extent specified in the protection system agreement;
- supporting:
 - the conduct of resolution of a bank that is a joint stock company by BFG;
 - takeover of a bank that is a joint stock company under Article 146b sec. 1 of the Banking Law.

On 14 June 2022, the banks (participants in the protection system): Powszechna Kasa Oszczędności Bank Polski SA, Pekao, Bank Millennium SA, BNP Paribas Bank Polska SA, ING Bank Śląski SA, mBank SA, Santander Bank Polska SA and Alior Bank, entered into a Protection System Agreement and established a protection system. The incorporated company, under the name System Ochrony Banków Komercyjnych SA, is the management company of the protection system.

On 14 September 2022, the Extraordinary Shareholder Meeting of System Ochrony Banków Komercyjnych adopted a resolution on additional contributions to the aid fund by participant banks in the amount of 0.038% of each participant bank's guaranteed funds, as of the last day of the second quarter of 2022.

The total cost of the fee for the aid fund established at the protection system management unit amounted to PLN 696 million in the PZU Group (PLN 482 million at Pekao and PLN 214 million at Alior Bank) and was charged to the consolidated income statement in Q2 2022 (PLN 636 million) and Q3 2022 (PLN 60 million).

59.6 UOKiK proceedings against Alior Bank

On 27 September 2019, the President of the Office of Competition and Consumer Protection (UOKiK) issued a decision to initiate proceedings against Alior Bank for recognizing the provisions of a contract template as abusive (ref. no. RPZ.611.4.2019.PG)

pertaining to 11 clauses (the so-called modification clauses) included in the contract templates used by Alior Bank on the basis of which Alior Bank made unilateral changes to the contracts concluded with consumers. The UOKiK President challenged the wording of the provisions in question as, among other things, vague and not allowing consumers to verify the occurrence of the prerequisites for the change being made. Alior Bank was in correspondence with the UOKiK President on the matter and submitted a plan to remove the ongoing effects of the violation from its contracts with clients. If the plan is accepted by the UOKiK President, it will be possible to conduct further discussions on the adjustment of the challenged modification clauses to the UOKiK President's expectations.

As of 31 December 2022, the PZU Group has not identified reasons to establish provisions for the above case.

UOKiK is conducting an investigation (mark: RWR.405.4.2021.ET) in order to preliminarily determine whether Alior Bank's actions taken after clients report unauthorized payment transactions, as referred to in the Payment Services Act of 19 January 2011, may justify the initiation of proceedings for practices that violate the collective interests of consumers or proceedings for recognition of the provisions of the model contract as prohibited. These proceedings are conducted "in the case." Alior Bank is not a party to these proceedings, but it has provided the documents and information requested by UOKiK. As of the date of signing the consolidated financial statements, Alior Bank had not received correspondence from UOKiK in which the authority expressed reservations against Alior Bank in connection with the practice. UOKiK announced in communications that it had initiated proceedings for practices violating the collective interests of clients against 9 other banks whose practices were verified in investigations analogous to those conducted against Alior Bank. Since Alior Bank has a similar practice to the one challenged in the case of these 9 banks, it is expected that Alior Bank will also receive a decision to initiate proceedings for practices that violate the collective interests of clients. At this point, it is not possible to estimate the effects of potential proceedings on Alior Bank, in particular, what would be UOKiK's expectation that Alior Bank would remove the effects of the violation, and whether a fine would be imposed on Alior Bank. In order to make such an estimate, it would be necessary to read the reasons for the decision to initiate proceedings. In addition, UOKiK's allegations raise questions throughout the banking sector about their compliance with European law. The provisions of the Payment Services Act cited by UOKiK in the context of these allegations do not fully reflect the Directive they implement. This has resulted in numerous appeals to UOKiK from the Polish Bank Association, as well as the introduction by the Ministry of Finance of a proposal to bring these provisions into line with the Directive indicated in the draft amendment to the Payment Services Act. In Alior Bank's opinion, the amounts resulting from those reported so far, in the event of a negative stance by UOKiK, will be recoverable through the courts. Alior Bank has established a provision of PLN 2 million for the remainder as of 31 December 2022.

59.7 Cases involving Alior Leasing sp. z o.o.

In December 2021 Alior Bank and Alior Leasing sp. z o.o. received from the former members of the Alior Leasing sp. z o.o. management board summons to an ad hoc arbitration court. Based on legal opinions, the PZU Group assesses the probability of the dismissed members of Alior Leasing's Management Board successfully obtaining benefits under the management program through the courts at less than 50%. Therefore, as of 31 December 2022, the PZU Group has not recognized a provision on this account.

Alior Leasing sp. z o.o. has identified the risk of possible claims against Alior Leasing sp. z o.o. filed by third parties, which may result from actions of some employees and associates of Alior Leasing sp. z o.o. As at the date of signing the consolidated financial statements, no claims have been filed on this account. The PZU Group believes that there are no circumstances justifying recognition of a provision on this account.

The PZU Group will not disclose any further information regarding the possible third party claims mentioned above, to avoid the weakening of its status and position in the potential proceedings.

59.8 PZU's planned bond issue

On 15 February 2022 the PZU Management Board adopted a resolution on submitting a motion to the PZU Shareholder Meeting in the matter of issuing subordinated bonds on the domestic market. The contemplated issue was closely related to PZU's planned early redemption of the series A subordinated bonds issued on 30 June 2017 with a total nominal value of PLN 2,250 million with

a maturity date of 29 July 2027 (Series A Bonds). The terms and conditions for the issue of Series A Bonds contemplated PZU's early redemption option on 29 July 2022.

In connection with the planned redemption of the Series A Bonds, PZU intended to issue a new issue of subordinated bonds to replace them and their parameters will be similar to the Series A Bonds. The contemplated issue would be for subordinated bonds on the domestic market with a total nominal value of no more than PLN 3,000 million whose proceeds would be treated as tier 2 own funds according to the Insurance Activity Act and Commission Delegated Regulation (EU) 2015/35 of 10 October 2014 supplementing Directive 2009/138/EC of the European Parliament and of the Council on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II).

On 25 February 2022, PZU's Supervisory Board gave a positive opinion on the Management Board's motion on the issue of the bonds, and on 25 March 2022, PZU's Shareholder Meeting approved the bond issue.

On 31 May 2022, in connection with the unfavorable market situation the PZU Management Board made the decision to discontinue work on the bond issue and, as a consequence, not to take advantage of the option of early redemption of Series A bonds.

59.9 Conflict in Ukraine

Due to the Russian Federation's invasion of Ukraine and the armed conflict lasting since 24 February 2022, PZU's Management Board assessed the impact of this situation on the PZU Group's operations, business continuity, financial position and going concern.

As a result of this analysis and due to the downgrading of Ukraine's rating, the PZU Group recognized in the consolidated income statement, among others:

- increased allowance for expected credit losses for investment financial assets in the amount of PLN 53 million;
- impairment losses on receivables in the amount of PLN 41 million.

As of 31 December 2022, the total net assets (assets less liabilities and adjusted for mutual interests between PZU Ukraine and PZU Ukraine Life) of the three companies operating in Ukraine (PZU Ukraine, PZU Ukraine Life and LLC SOS Services Ukraine) amounted to PLN 25 million (as of 31 December 2021: PLN 70 million).

The assets (net of the shares held mutually between PZU Ukraine and PZU Ukraine Life) of these companies subject to consolidation totaled PLN 391 million (as of 31 December 2021: PLN 554 million), including, among others:

- investment financial assets – PLN 207 million (as of 31 December 2021: PLN 322 million), of which PLN 78 million (as of 31 December 2021: PLN 159 million) – instruments issued by the Ukrainian government, and PLN 129 million (as of 31 December 2021: PLN 163 million) – term deposits;
- the share of reinsurers in technical provisions is PLN 49 million (as of 31 December 2021: PLN 134 million), of which PLN 32 million (as of 31 December 2021: PLN 47 million) accounted for PZU's share.

The companies' liabilities totaled PLN 366 million (31 December 2021: PLN 484 million), including:

- technical provisions of PLN 318 million (as of 31 December 2021: PLN 414 million);
- other liabilities PLN 48 million (as of 31 December 2021: PLN 70 million).

PZU Group banks held PLN 294 million of bank credit exposures as of 31 December 2022 (as of 31 December 2021: PLN 335 million) and 107 million bank off-balance sheet exposures (as of 31 December 2021: PLN 317 million) to entities that are residents in Ukraine, Russia or Belarus.

Other than the aforementioned assets of companies with operations in Ukraine and exposures to Alior Bank and Pekao, the PZU Group had no significant exposure to markets subject to hostilities or sanctions. All of the bonds held on 31 December 2021 issued by the governments of Russia (90 million PLN), Belarus (1.6 million PLN) and Ukraine (4 million PLN) were sold by 3 March 2022 (the realized loss was 13 m PLN and was charged to the PZU Group's consolidated income statement in Q1 2022).

With martial law in effect throughout Ukraine as of 24 February 2022, and active hostilities carried out in the east and south of the country, as well as the risk of airstrikes conducted throughout the territory, Ukrainian companies in the PZU Group are working with wartime considerations in mind:

- operational processes are carried out with ongoing alignment to the situation, all important processes are executed (onsite and remotely), while ensuring the continuation and execution of critical processes, all IT systems are accessible;
- Ukraine has been divided into three zones - red (occupied territories - conclusion of agreements is prohibited), blue (territories adjacent to the occupied territories or recaptured from the Russian Federation - conclusion of agreements is possible under the strict control of underwriters) and green (western and central parts of Ukraine - no restrictions on sales);
- PZU Ukraine's sales processes are conducted on a limited basis - offices are closed wherever there are hostilities, the company sells both new and renewal insurance in all three main business lines (in motor, property and personal insurance) through all channels.

In 2022, the largest share of sales came from motor insurance - compulsory TPL, Green Card and MOD – as well as health and travel (accident) insurance;

- PZU Ukraine Life's sales processes concerning new business activity were initially halted in all sales channels, but as of June 2022 the company resumed sales through the banking channel of short-term products with limited risk and additional territorial restrictions on underwriting and insurance amounts, and as of July 2022 resumed sales of new business policies not requiring underwriting, with restrictions on risk and insurance amounts, in the agency and brokerage sales channels;
- the functionality of the full cycle of claims handling is ensured - in PZU Ukraine Life payments are made with complete documentation and withdrawal amounts payments are made as far as possible. PZU Ukraine carries out MOD and TPL insurance payouts in accordance with the terms of insurance contracts and applicable legislation - the company carries out payouts only if it has a complete set of documents, while the declaration of martial law throughout the country excludes the insurer's liability for losses incurred due to acts of war;
- the contact center and hotline are running without interruptions (LLC SOS Services Ukraine);
- companies maintain a personnel policy ensuring that labor relations are matched with the actual status of employees who are non-working, mobilized, staying abroad, to whom the companies currently cannot offer work due to limited operations, apply “suspension of employment contracts” - in accordance with the regulations following from the Act on the organization of labor relations during martial law of 15 March 2022;
- the liquidity of the companies is ensured, and employee and other obligations, including administrative and tax obligations, are serviced on an ongoing basis to the extent technically possible;
- the companies have revised the liquidity management, by providing more preference to the cash on the current accounts and short term deposits within the banks, members of foreign banking groups;
- the companies focus on ensuring cybersecurity, information security and physical server security.

In addition, as of 24 February 2022, the NBU has introduced and maintained restrictions affecting the conduct of business in Ukraine, including:

- a temporary ban on the purchase of foreign currencies;
- a ban on international money transfers from Ukraine.

At the end of 2022, NBU eased the above restrictions, among other things: it decided to partially lift the ban on international payments from reinsurance to non-residents. An insurer using reinsurance to make a foreign payment was required to obtain prior approval each time from NBU, which examines compliance with a number of requirements (including a transparent ownership structure, an impeccable business reputation, compliance with solvency and capital adequacy ratios, and riskiness of operations) before issuing it. On 18 January 2023, PZU Ukraina received confirmation from NBU that the conditions stipulated in the NBU Resolution had been met, as well as a one-time approval to repay a portion of its reinsurance obligations to designated non-residents. As part of the approval, PZU Ukraina paid off part of its reinsurance obligations between 27 January and 2 February 2023.

On 14 February 2023, the NBU Resolution of 10 February 2023, came into effect, under which insurers may settle international reinsurance obligations (with the exception of mandatory motor TPL insurance), once they are included in the list of insurers authorized to conduct reinsurance operations with non-resident reinsurers. An insurer may be included in this list provided that the indicated requirements are met on the date of application to NBU and during the period of being on this list, confirmed by a decision issued by NBU on their fulfillment. PZU Ukraina meets the requirements and on 17 February 2023, it submitted an application to NBU for inclusion in the aforementioned list of insurers and by resolution of 13 March 2023, was included in the list.

In addition, as part of the so-called “wartime regulation” of the market, on 6 March 2022, the NBU adopted Resolution No. 39 on the regulation of the activity of non-banking financial services market participants, non-banking financial groups, payment market participants, debt collection companies and legal entities licensed to provide money transport services to banks, under which sanctions will not be applied for violations of regulatory criteria and standards for capital adequacy, solvency, liquidity, profitability, asset quality and risk of the insurer's business during the martial law period.

The martial law was extended up to 20 May 2023.

In addition, rating agencies have changed Ukraine's ratings several times during 2022. The current ratings are as follows:

- as of 19 August 2022 according to S&P Global Ratings, Ukraine's long-term and short-term foreign currency sovereign ratings are at CCC+/C, respectively;
- as of 17 August 2022 according to Fitch Ratings, the rating for long-term and short-term foreign currency liabilities (confirmed on 20 January 2023) is CC/C;
- as of 10 February 2023 according to Moody's Investors Service, the long-term rating of the government of Ukraine in foreign currencies and in hryvnia, as well as the rating of the unsecured debt in foreign currency has been lowered to Ca from Caa3 and the forecast has been changed from negative to stable.

Due to the aforementioned extraordinary circumstances, the Ukrainian companies of the PZU Group did not meet the sales targets set for 2022. As at the date of signing the consolidated financial statements, the assessment of the possibility of maintaining business continuity (materialization of the risk of the full loss of operational capabilities) of the PZU Group's Ukrainian companies is subject to uncertainty due to the following potential threats, among others:

- long-term persistence and escalation of hostilities (about 16% of Ukraine's area is covered by hostilities);
- continued shelling of civilian and military objects with long-range weapons, including objects of critical infrastructure, which leads to significant losses among the human population and disruption in supply of communal services, such as energy, heating and water supply;
- lack of access to key systems, including by destroying the companies' physical infrastructure;
- cessation of the handling of all internal money transfers by the Ukrainian banking system;
- unavailability of employees.

The PZU Group analyzes the developments on an ongoing basis and examines forward-looking scenarios for the run of events. Due to the situation in Ukraine, the valuation of assets and liabilities (especially technical provisions) of Ukrainian companies requires a number of assumptions and is subject to significant uncertainty.

59.10 Subsequent events

59.10.1. Opinion of the Advocate General of the CJEU dated 16 February 2023

On 16 February 2023, the Advocate General of the CJEU (“Advocate General”) issued an opinion whether, where a loan agreement concluded by a bank and a client is invalid from the outset due to the inclusion in it of unfair contractual terms, the parties, in addition to the return of the money paid in performance of the agreement (the bank – the loan principal, the client – the installments, fees, commissions and insurance premiums) and statutory interest for delay from the time of the demand for payment, may also claim any other benefits.

In the above opinion of the Advocate General, under Council Directive 93/13/EEC of 5 April 1993 on unfair terms in consumer contracts (the “Directive”):

- client's claims to claim other benefits – do not conflict with its provisions, with it being up to the national court to determine, in light of national law, whether clients have the right to assert such claims and, if so, to decide on their merits;
- banks' claims to demand additional benefits from the client (so-called remuneration for the use of capital) – oppose such a judicial interpretation of domestic law that would grant banks such claims.

The above opinion is not binding, and the CJEU's judgment relating to the above area is not expected until mid-2023 at the earliest.

The PZU Group estimated a provision for legal risk related to CHF foreign currency mortgage loans in accordance with the assumptions presented in section 48.3, assuming a significant increase in the number of litigation cases in the future and the

negative nature of court settlements. In calculating the provision, the PZU Group does not take into account the collection of remuneration from borrowers for the use of capital.

The PZU Group assesses that a possible sharing of the Advocate General's position expressed in the opinion by the CJEU in its ruling may in the future affect the need to revise the assumptions related to the calculation of the provision and the PZU Group's estimates of the expected number of lawsuits and claims (remuneration) for the borrower, which are not possible to quantify today.

59.10.2. Issue of senior unsecured bonds by Pekao

On 1 March 2023, Pekao's Management Board adopted a resolution approving the issue by Pekao of senior unsecured bonds with an aggregate nominal value of no more than PLN 500 million. Due to significant investor interest expressed in the course of book building, the Board decided to increase the originally envisaged amount of the issue to PLN 750 million.

The bonds pursuant to Article 97a(1)(2) of the Act of 10 June 2016 on the Bank Guarantee Fund, the deposit guarantee system and forced restructuring will constitute Pekao's eligible liabilities.

The bonds will be offered in a manner that does not require the preparation of a prospectus, as the issue of the bonds will take place pursuant to Article 33(1) of the Act of 15 January 2015 on bonds and the offers to purchase the bonds will only be addressed to qualified investors within the meaning of Article 2(e) of Regulation (EU) 2017/1129 of the European Parliament and of the Council of 14 June 2017 on the prospectus to be published when securities are offered to the public or admitted to trading on a regulated market and repealing Directive 2003/71/EC.

The nominal value of one bond will be PLN 500,000. The interest rate on the bonds will be variable, based on the reference rate WIBOR 6M, plus a margin of 2.4 pp. The bond will have a maturity of 3 years, with a reserved option giving the right of early redemption within 2 years of the issue date or in other cases indicated in the bond issue terms and conditions (regulatory change of bond classification, change of bond taxation), subject to the approval of the BFG, if such approval is required. The issue date will be 3 April 2023 and the redemption date will be 3 April 2026 (subject to the possibility of their early redemption under the rules described in Articles 77 and 78a of Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms, amending Regulation (EU) No 648/2012. The bonds are to be introduced into the Catalyst alternative trading system operated by the Warsaw Stock Exchange.

Signatures of the PZU Management Board Members:

Name	Position	
Beata Kozłowska-Chyła	President of the PZU Management Board (signature)
Tomasz Kulik	Member of the PZU Management Board (signature)
Ernest Bejda	Member of the PZU Management Board (signature)
Małgorzata Kot	Member of the PZU Management Board (signature)
Krzysztof Kozłowski	Member of the PZU Management Board (signature)
Piotr Nowak	Member of the PZU Management Board (signature)
Maciej Rapkiewicz	Member of the PZU Management Board (signature)
Małgorzata Sadurska	Member of the PZU Management Board (signature)

Person responsible for drawing up the consolidated financial statements:

Katarzyna Łubkowska	Director of the Accounting Department (signature)
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Warsaw, March 29, 2023

RESOLUTION NO. ... /2023

ADOPTED BY THE ORDINARY SHAREHOLDER MEETING

OF POWSZECHNY ZAKŁAD UBEZPIECZEŃ SPÓŁKA AKCYJNA

on 2023

to approve the Consolidated Financial Statements of the Powszechny Zakład Ubezpieczeń Spółka Akcyjna Group for the year ended 31 December 2022, prepared in accordance with the International Financial Reporting Standards

Pursuant to Article 395 § 5 of the Commercial Company Code in conjunction with Article 63c Section 4 of the Accounting Act of 29 September 1994 and § 18 item 1 of the PZU SA Articles of Association, the Ordinary Shareholder Meeting of PZU SA hereby resolves as follows:

§ 1

The Ordinary Shareholder Meeting of PZU SA, after a review, hereby approves the Consolidated Financial Statements of the Powszechny Zakład Ubezpieczeń Spółka Akcyjna Group for the year ended 31 December 2022 prepared according to International Financial Reporting Standards, comprising:

- 1) consolidated statement of financial position as at 31 December 2022, showing assets and liabilities and equity totaling PLN 436,119 million (four hundred and thirty-six billion one hundred and nineteen million Polish zloty);
- 2) consolidated profit and loss account for the period from 1 January to 31 December 2022, showing a net profit of PLN 5,259 million (five billion two hundred and fifty-nine million Polish zloty);
- 3) consolidated statement of comprehensive income for the period from 1 January to 31 December 2022, showing net comprehensive income of PLN 2,335 million (two billion three hundred thirty-five million Polish zloty);
- 4) consolidated statement of changes in equity for the period from 1 January to 31 December 2022, showing a decrease in equity by PLN 242 million (two hundred and forty-two million Polish zloty);
- 5) consolidated cash flow statement for the period from 1 January to 31 December 2022, showing an increase in cash by PLN 6,513 million (six billion five hundred and thirteen million Polish zloty);
- 6) supplementary information and notes.

§ 2

This resolution shall come into force at the time of its adoption.

Chairperson

of the Ordinary Shareholder Meeting of PZU SA