

Capital Adequacy and Other Information Subject to Disclosure of the Powszechna Kasa Oszczędności Bank Polski Spółka Akcyjna Group as at 31 December 2020

CAPITAL ADEQUACY AND OTHER INFORMATION SUBJECT TO DISCLOSURE OF THE POWSZECHNA KASA OSZCZĘDNOŚCI BANK POLSKI SPÓŁKA AKCYJNA GROUP AS AT 31 DECEMBER 2020 (IN PLN MILLION)



#### Introduction

The Report "Capital Adequacy and Other Information Subject to Disclosure of the Powszechna Kasa Oszczędności Bank Polski Spółka Akcyjna Group as at 31 December 2020", (hereinafter referred to as the Report), was prepared in accordance with the provisions of Article 111a of the Act of 29 August 1997 – Banking Law, hereinafter referred to as the "Banking Law", 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 and amending Regulation (EU) No 648/2012, hereinafter referred to as the "CRR", taking into account the implementing acts under the CRR, the Act of 5 August 2015 on macroprudential supervision over the financial system and crisis management, hereinafter referred to as the "Act on macroprudential supervision", as well as Recommendation M on operational risk management in banks, Recommendation P on liquidity risk management in banks, and Recommendation H on the internal control system in banks, issued by the Polish Financial Supervision Authority (Komisja Nadzoru Finansowego), hereinafter referred to as the "PFSA".

The disclosures also reflect the requirements set out in Commission Implementing Regulation (EU) No 1423/2013 of 20 December 2013 laying down implementing technical standards with regard to the disclosure of own funds requirements for institutions according to the CRR (Regulation 1423/2013), in Commission Implementing Regulation (EU) No 1030/2014 of 29 September 2014 laying down implementing technical standards with regard to the uniform formats and the date for the disclosure of values used to identify global systemically important institutions according to the CRR (Regulation 1030/2014), in Commission Delegated Regulation (EU) No 1222/2014 of 8 October 2014 supplementing Directive 2013/36/EU of the European Parliament and of the Council with regard to regulatory technical standards for specifying the methodology for identifying global systemically important institutions and for defining subcategories of global systemically important institutions (Regulation 1222/2014), in Commission Delegated Regulation (EU) 2015/1555 of 28 May 2015 supplementing the CRR with regard to regulatory technical standards for the disclosure of information in relation to the compliance of institutions with the requirement for a countercyclical capital buffer in accordance with Article 440 (Regulation 2015/1555), in Commission Implementing Regulation (EU) 2016/200 of 15 February 2016 laying down implementing technical standards with regard to the disclosure of the leverage ratio for institutions according to the CRR (Regulation 2016/200), in Commission Delegated Regulation (EU) 2017/2295 of 4 September 2017 supplementing the CRR with regard to regulatory technical standards for disclosure of encumbered and unencumbered assets (Regulation 2017/2295), in the quidelines no. EBA/GL/2014/03 of 27 June 2014 on the disclosure of encumbered and unencumbered assets (EBA/GL/2014/03 Guidelines). in the guidelines no. EBA/GL/2015/22 of 27.06.2016 on sound remuneration policies under Articles 74(3) and 75(2) of Directive 2013/36/EU and disclosures under Article 450 of the CRR (EBA/GL/2015/22 Guidelines), in the quidelines no. EBA/GL/2016/01 of 29/02/2016 on the further specification of the indicators of global systemic importance and their disclosure (EBA/GL/2016/01 Guidelines), in the quidelines no EBA/GL/2016/11 on disclosure requirements under Part Eight of the CRR (EBA/GL/2016/11 Guidelines), in the EBA/GL/2017/01 guidelines on LCR disclosure to complement the disclosure of liquidity risk management under Article 435 of the CRR (EBA/GL/2017/01 Guidelines), in the EBA/GL/2018/01 guidelines on uniform disclosures under Article 473a of the CRR as regards transitional arrangements for mitigating the impact of the introduction of IFRS 9 on own funds (EBA/GL/2018/01 Guidelines) in connection with the application of the transitional arrangements of the implementation of IFRS 9, in the guidelines of 17 December 2018 on the disclosure of non-performing and forborne exposures (EBA/GL/2018/10), and in the EBA/GL/2020/07 quidelines of 2 June 2020 on reporting and disclosure of exposures subject to measures applied in response to the COVID-19 crisis (EBA/GL/2020/07 Guidelines).

Pursuant to Article 13(1) of the CRR, Powszechna Kasa Oszczędności Bank Polski Spółka Akcyjna (hereinafter referred to as PKO Bank Polski S.A. or the Bank), being a European parent institution, discloses the information regarding capital adequacy referred to in Part Eight of the CRR in a separate document annually and semi-annually.

This Report was prepared in accordance with the Bank's internal regulations concerning the information policies of PKO Bank Polski S.A. regarding capital adequacy (The information policies of PKO Bank Polski S.A. regarding capital adequacy and other information subject to disclosure), in accordance with the provisions of Article 431 of the CRR, that are available on the Bank's website (<a href="www.pkobp.pl">www.pkobp.pl</a>) as well as the related internal regulations which contain detailed information relating to disclosures concerning capital adequacy, the manner of their verification, approval and publication.

In accordance with Commission Delegated Regulation (EU) No 183/2014, the capital adequacy calculation includes adjustments recognized in profit or loss, which relate to credit risk, for the periods covered by Common Equity Tier 1 capital. Therefore, the Bank took into account specific credit risk adjustments as at 30 June 2020; appropriate adjustments were also taken into account at the Powszechna Kasa Oszczędności Bank Polski Spółka Akcyjna Group level.

The Report covers the year 2020 and presents data as at 31 December 2020 and was prepared in accordance with the regulations referred to in the paragraph above, in force as at 31 December 2020. The Report presents the consolidated data<sup>3</sup> of the Powszechna Kasa Oszczędności Bank Polski Spółka Akcyjna Group, hereinafter referred to as the "Bank's Group". Some of the information in the Report relates to the separate data of PKO Bank Polski S.A. due to the Bank's material effect on the risk profile of the Bank's Group.

Unless otherwise stated, the figures presented in the Report are expressed in PLN million. Any differences in totals and percentages result from rounding amounts off to PLN million and rounding percentages off to one place after the decimal point.

The Report was prepared taking into account all the available data as at 31 December 2020. The Report addresses the requirements of the regulations described above insofar as they relate to the Bank and the Bank's Group. Lack of a reference to a particular article means that the related disclosures were deemed inapplicable. This Report was subject to an internal verification by the Bank's Internal Audit Department.

<sup>&</sup>lt;sup>1</sup> Journal of Laws of 2020, item 1896, as amended.

<sup>&</sup>lt;sup>2</sup> Journal of Laws of 2017, item 1934, as amended.

<sup>&</sup>lt;sup>3</sup> The data covers only the entities subject to prudential consolidation.

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Capital / to Disclo	Adequacy and Other Information Subject osure	CRR requirements regarding disclosures			
1.	Information on the Bank and the Group	Scope of application	Article 436		
2.	Management System	Risk management objectives and policies	Article 435		
2.5.13.	Using external credit assessment institutions (ECAIs) and other	Use of ECAIs	Article 444		
	information on counterparty credit risk exposures	Exposure to counterparty credit risk	Article 439		
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3.	Own funds	Own funds	Article 437		
		Capital requirements	Article 438		
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		Operational risk	Article 446		
5.	Unencumbered assets	Unencumbered assets	Article 443		
6.	Capital buffers	Capital buffers	Article 440		
7.	Leverage	Leverage	Article 451		
10.	Remuneration policy	Remuneration policy	Article 450		
Not appl	licable	Indicators of global systemic importance	Article 441		
Not appl	licable	Use of the IRB Approach to credit risk	Article 452		
Not appl	licable	Use of Internal Market Risk Models	Article 455		

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### 1. Information on the Bank and the Bank's Group

Pursuant to the CRR, prudential consolidation is used for capital adequacy purposes, which, unlike consolidation in compliance with International Financial Reporting Standards, covers only subsidiaries which meet the definition of an institution, a financial institution or an ancillarly services undertaking.

Pursuant to the CRR, for prudential consolidation purposes the Group comprises: PKO Bank Polski S.A., the PKO Leasing S.A. Group, PKO BP BANKOWY PTE S.A., PKO Towarzystwo Funduszy Inwestycyjnych S.A., the KREDOBANK S.A. Group, PKO Finance AB, PKO BP Finat sp. z o.o., PKO Bank Hipoteczny S.A., and the Bankowe Towarzystwo Kapitałowe S.A. Group.

Non-financial and insurance entities are not subject to prudential consolidation. Tables 1.1-1.2 present the differences in the scope of the consolidation of the Bank's Group for the purposes of accounting and prudence regulations as at 31 December 2020.

Table 1.1. Differences in accounting and regulatory consolidation and mapping of categories of financial statements to regulatory risk categories [template EU LI1]

	20	2020					
	a)	b)					
The Bank's Group	Carrying values as reported in published financial statements	Carrying values under scope of regulatory consolidation					
ASSETS							
Cash and balances with the Central Bank	7 474	7 474					
Amounts due from banks	2 557	2 488					
Hedging derivatives	958	958					
Other derivative instruments	5 501	5 501					
Securities	123 682						
- held for trading	1 178	1 178					
- not held for trading, measured at fair value through profit or loss	2 466	1 132					
- measured at fair value through other comprehensive income	73 511	72 606					
- measured at amortized cost	46 527	46 496					
Loans and advances to customers	222 603	222 764					
- not held for trading, measured at fair value through profit or loss	6 013	6 013					
- measured at amortized cost	216 590	216 751					
Investments in subsidiaries, associates and joint ventures	291	1 394					
Non-current assets held for sale	126	124					
Intangible assets	3 281	3 118					
Property, plant and equipment transferred under operating lease	1 168	1 168					
Property, plant and equipment	3 161	2 977					
Current income tax receivable	19	2					
Deferred income tax assets	2 543	2 532					
Other assets	2 804	2 756					
TOTAL ASSETS	376 966	374 668					
Amounts due to the Central Bank							
Amounts due to banks	2 626	2 626					
- measured at fair value through profit or loss	2 020	2 020					
- measured at amortized cost	2 626	2 626					
Hedging derivatives	378						
Other derivative instruments	6 104	6 104					
	6 104	47					
Repo transactions	202.25						
Amounts due to customers	282 356	281 308					
- measured at fair value through profit or loss	1 216	-					
- measured at amortized cost	281 140						
Liabilities in respect of insurance activities	1 740						
Loans and advances received	2 267	2 267					
Debt securities in issue	32 098	32 396					
Subordinated liabilities	2 716						
Other liabilities	4 703	4 615					
Current income tax liabilities	193	190					
Deferred income tax provision	372	335					
Provisions	1 502	1 496					
TOTAL LIABILITIES	337 055	334 478					
Share capital	1 250	1 250					
Other capital	35 089	35 013					
Retained earnings	6 142						
Current year result	(2 557)						
Capital allocated to shareholders of the parent company	39 924						
Non-controlling interest	(13)						
TOTAL EQUITY	39 911						
	39 911	374 668					

The carrying values shown under the regulatory model differ from the values recognized in the published financial statements as at and for the year ended 31 December 2020 due to the application of different scopes of consolidation

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Table 1.2. Outline of differences in the scope of consolidation (of each entity) [template EU LI3]

		2020										
	The Bank's Group	a)	b)	c)	d)	f)						
		Method of		Method of regul	atory consolidation							
No.	Name of entity	accounting consolidation	Full consolidation	Proportional consolidation	Neither consolidated nor deducted	Deducted <sup>2</sup>	Description of the entity					
1	PKO Bank Polski SA			parent company			Banking activities					
2	PKO Bank Hipoteczny SA	Full consolidation	×				Banking activities					
3	PKO Towarzystwo Funduszy Inwestycyjnych SA	Full consolidation	Х				Creation and management of Open-end and Closed-end Investment Funds and management of the trading book					
4	PKO BP BANKOWY PTE SA	Full consolidation	×				Management of an open and voluntary pension fund					
5	PKO Leasing SA	Full consolidation	×				Leasing and providing bank loans					
	PKO Agencja Ubezpieczeniowa sp. z o.o.	Full consolidation	Х				Insurance brokerage and providing bank loans within PKO Leasing Group					
	PKO Leasing Finanse sp. z o.o.	Full consolidation	×				Ancillary services in the field of storing and selling post-Leasing items					
	PKO Leasing Sverige AB	Full consolidation	×				Leasing					
	Prime Car Management SA	Full consolidation	х				Leasing and fleet management services.					
	Futura Leasing SA	Full consolidation	X				Leasing and ancillary services in the field of storing and selling post- Leasing items					
	Masterlease sp. z o.o.	Full consolidation	X				Leasing					
	MasterRent24 sp. z o.o.	Full consolidation	×				Short-term rental of vehicles					
	ROOF Poland Leasing 2014 DAC <sup>3</sup>	Full consolidation	Х				A special-purpose vehicles set up for the purpose of leasing receivables securitization.					
	Polish Lease Prime 1 DAC <sup>3</sup>	Full consolidation	×				A special-purpose vehicles set up for the purpose of leasing receivables					
	PKO Faktoring SA	Full consolidation	Х				Factoring					
6	PKO BP Finat sp. z o.o.	Full consolidation	×				Service activities, including transfer agent services and outsourcing of IT specialists. On the basis of the KNF authorization - services as a national payment institution					
7	PKO Życie Towarzystwo Ubezpieczeń SA	Full consolidation				×	Life insurance					
	Ubezpieczeniowe Usługi Finansowe sp. z o.o.	Full consolidation			×		Service activities					
8	PKO Towarzystwo Ubezpieczeń SA	Full consolidation				Х	Other personal insurance and property insurance					
9	PKO Finance AB	Full consolidation	х				Financial services, including obtaining funds by issuing bonds and granting loans to companies from the PKO Bank Polski SA Group, including the Bank					
10	KREDOBANK SA	Full consolidation	×				Banking activities					
	Finansowa Kompania "Idea Kapitał" sp. z o.o.	Full consolidation	×				Financial services					



11 Merkury - fiz an	Full consolidation		Х	Placing funds collected from fund participants
"Zarząd Majątkiem Górczewska" sp. z o.o.	Full consolidation		Х	Real estate management
Molina sp. z o.o.	Full consolidation		Х	A general partner in limited joint-stock partnerships of the fund
Molina spółka z ograniczoną odpowiedzialnością 1 S.K.A.	Full consolidation		Х	
Molina spółka z ograniczoną odpowiedzialnością 2 S.K.A.	Full consolidation		Х	
Molina spółka z ograniczoną odpowiedzialnością 3 S.K.A. w likwidacji	Full consolidation		X	Buying and selling real estate for own account.
Molina spółka z ograniczoną odpowiedzialnością 4 S.K.A.	Full consolidation		X	Real estate management
Molina spółka z ograniczoną odpowiedzialnością 5 S.K.A.	Full consolidation		X	
Molina spółka z ograniczoną odpowiedzialnością 6 S.K.A.	Full consolidation		X	
12 NEPTUN - fizan	Full consolidation		X	Placing funds collected from fund participants
Bankowe Towarzystwo Kapitałowe SA	Full consolidation	Х		Service activities and portfolio management
"Inter-Risk Ukraina" spółka z dodatkową odpowiedzialnością	Full consolidation	х		Real estate development
Finansowa Kompania "Prywatne Inwestycje" sp. z o.o.	Full consolidation	Х		Financial services
Qualia sp. z o.o.	Full consolidation		X	After-sales service for development products.
Sarnia Dolina sp. z o.o.	Full consolidation		Х	Developement activities
"CENTRUM HAFFNERA" sp. z o.o.	Full consolidation		Х	Real estate management of subsidiaries
"Sopot Zdrój" sp. z o.o.	Full consolidation		X	Real estate management
13 PKO VC - fizan	Full consolidation		Х	Placing funds collected from fund participants

<sup>1</sup> The "numbered" entities other than PKO Bank Polski S.A. - the direct subsidiaries of PKO Bank Polski S.A.; other entities - indirect subsidiaries.

<sup>&</sup>lt;sup>2</sup> The item "deducted" indicates the Bank's capital exposures (other than the entities subject to prudential consolidation) taken into account in calculating deductions from the own funds of the Bank's Group. In view of the fact that the total exposures to the Common Equity Tier 1 instruments of financial sector entities did not exceed the thresholds defined in the CRR, the Common Equity Tier 1 capital of the Bank's Group for prudential consolidation as at 31 December 2020 was not reduced by the aforementioned exposures. These exposures, in accordance with the CRR requirements, were included in risk weighted assets with a risk weight of 250%. The Bank's Group does not have any exposures constituting deductions from Tier 2 capital, either.

<sup>&</sup>lt;sup>3</sup> In accordance with IFRS 10, PKO Leasing S.A. exercises control over the aforementioned company despite the fact that it has no capital investment in the company.

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In 2020, there were no significant changes in the Bank's Group structure.

As regards the companies subject to prudential consolidation, the following mergers took place: PKO Leasing Nieruchomości sp. z o.o. (the acquiree) with PKO Leasing S.A. (the acquirer) and ZenCard sp. z o.o. (the acquiree) with PKO BP Finat sp. z o.o. (the acquirer).

The Parent Company of the Bank's Group is PKO Bank Polski S.A. whose share in the consolidated total assets amounts to 85.49%.

PKO Bank Hipoteczny S.A. is a specialist bank operating on the basis of the Act of 29 August 1997 on Mortgage Covered Bonds and Mortgage Banks. It specializes in granting residential mortgage loans to individual customers, and it purchases receivables in respect of such loans from PKO Bank Polski S.A. PKO Bank Hipoteczny S.A. issues mortgage covered bonds which constitute one of the main sources of long-term financing for loans secured with real estate. The company operates in the territory of the Republic of Poland, with mortgage covered bonds being issued as part of the National Programme and the International Programme.

The PKO Leasing S.A. Group (i.e. PKO Leasing S.A. and its subsidiaries) mainly provides leasing, factoring, fleet management and vehicle rental services. The companies in the aforementioned Group operate mainly in the territory of the Republic of Poland and in Sweden (PKO Leasing Sverige AB) and Ireland (ROOF Poland Leasing 2014 DAC and Polish Lease Prime 1 DAC).

KREDOBANK S.A. carries out banking activities in the territory of Ukraine and is subject to Ukrainian banking supervision. KREDOBANK S.A. is a universal bank oriented towards serving retail customers and the customers of companies and enterprises operating mainly in the western part of Ukraine and in Kiev. Furthermore, it strives to attract corporate customers with high creditworthiness.

The company offers services which consist of, among other things: maintaining accounts for natural persons and business entities, collecting deposits, granting loans, sureties and guarantees, leasing, foreign exchange market and securities market operations. In 2012, KREDOBANK S.A. became the sole shareholder of Finansowa Kompania "Idea Kapitał" sp. z o.o. and established a Group.

The other entities listed in Table 1.2, which form part of the Bank's Group (under prudential consolidation) operate mainly in the territory of the Republic of Poland and in Ukraine (Finansowa Kompania "Prywatne Inwestycje" sp. z o.o. and "Inter-Risk Ukraina" spółka z dodatkową odpowiedzialnością [an additional liability company]) and in Sweden (PKO Finance AB).

Through its branches, PKO Bank Polski S.A. also operates in the Federal Republic of Germany (PKO Bank Polski S.A., Niederlassung Deutschland) and the Czech Republic (PKO BP S.A., Czech Branch). In 2020, it also established a branch in the Slovak Republic (PKO BP S.A., pobočka zahraničnej banky), however, the start of the branch operating activities was in March 2021.

Information about all of the Bank's subsidiaries, including the Bank's interests in the share capitals of the individual entities is included in the consolidated financial statements of the Bank's Group as at and for the year ended 31 December 2020, which were published on 29 April 2021 (Note 1 Activities of the Group).

Within the Bank's Group, there are certain restrictions (described below) on the premature settlement of liabilities by the subsidiaries<sup>5</sup> and with regard to the transfer of funds in the form of dividends:

- 1) the leasing receivables securitization plan carried out within the PKO Leasing S.A. Group may not be terminated before the contractual deadline (no possibility to repurchase the receivables sold early);
- 2) in accordance with the resolution of the Extraordinary General Shareholders' Meeting of KREDOBANK S.A. of 2009, a moratorium was introduced on dividend payments; the moratorium is valid until the relevant resolution is adopted on lifting it in 2020, the moratorium on dividend payments remained in force;
- 3) the strategies or financial plans for the years 2021-2023 of selected subsidiaries do not provide for dividend payments;
- 4) selected loan agreements signed by the companies in the Bank's Group include covenants concerning restrictions on dividend payments prior to a loan's maturity.

Furthermore, in making decisions on dividend payments, PKO Bank Polski S.A. and its subsidiaries follow the legal regulations (including the regulations regarding the amount of own funds and capital adequacy ratios) and the PFSA's recommendations. The supervisory expectations regarding capital adequacy measures are described in more detail in the following chapters: "6. Capital buffers" and "9. Capital adequacy" of this Report.

### 2. Management system

The management system is a set of principles and mechanisms related to the decision-making processes taking place at the Bank, as well as the assessment of its banking activities. The Bank's management system comprises a risk management system and an internal control system.

#### 2.1. Risk management

Risk management is one of the most important internal processes both in PKO Bank Polski S.A., including the Bank's foreign branches, and in the other entities in the Bank's Group. The objective of risk management is to ensure that profitable business activities are conducted, while ensuring control of the risk level and keeping it within the risk tolerance and the system of limits adopted by the Bank and the Bank's Group, in the changing macroeconomic and legal environment. The expected risk level is an important factor in the planning process.

The objectives of managing risk by striving to maintain the risk level within the accepted tolerance level are:

- 1) to protect the value of the shareholders' capital;
- 2) to protect customers' deposits;
- 3) to support the Bank's Group in conducting effective operations;
- 4) to provide the fullest possible information on risk in decision-making;
- 5) to improve the processes and to establish risk management within the organizational culture of the Bank's Group effectively.

<sup>&</sup>lt;sup>4</sup> The share was calculated in relation to the consolidated total assets of the companies subject to prudential consolidation before consolidation adjustments and inclusions as at 31 December 2020.

Other than the redemption of bonds or mortgage covered bonds at the request of the issuer before the maturity date.

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Risk management in the Bank's Group is based, in particular, on the following principles:

- 1) the Bank's Group manages all the identified risk types;
- 2) the risk management process is adequate to the scale of operations and the materiality, scale and complexity of a given risk, and it is tailored to new risk factors and sources of risk on an ongoing basis;
- 3) the risk management methods (in particular, the models and the assumptions behind them) and the risk measurement or assessment systems are tailored to the scale and complexity of a risk, the present and planned activities, and the environment, and they are reviewed and validated periodically:
- 4) the risk management area is organizationally independent of the business activities;
- 5) risk management is integrated with the planning and controlling systems;
- 6) the risk level is monitored and controlled on an ongoing basis;
- 7) the risk management process supports the pursuit of the Bank's Strategy while remaining in compliance with the risk management strategy, in particular with regard to the risk tolerance level.

The risk management process in the Bank's Group consists of the following elements:

- risk identification which consists of recognizing both current and potential sources of risk and estimating the materiality of its potential impact on the activities of the Bank and the Bank's Group. As part of risk identification, those risk types which are considered material in the activities of the Bank and the entities in the Bank's Group and at the Bank's Group level are identified. The assessment of risk materiality and the analysis of the impact of individual risk types on the business operations of the Bank and the Group entities are carried out at least once a year. In the event of new risk types arising, significant changes in the strategy and action plans of the Bank or the Bank's Group or in the external environment, a materiality assessment may be carried out more frequently. A materiality assessment is carried out by determining the degree of occurrence of individual factors affecting a given risk type, determining whether the analysed risk type is a material risk that has a material impact on profitability and the capital necessary to cover it, or whether it is subject to monitoring. As far as prudential consolidation is concerned, the following risks are considered material in the Bank's Group: credit risk, the risk of foreign currency mortgage loans to households, foreign exchange risk, interest rate risk, liquidity risk, including financing risk, operational risk, business risk, macroeconomic risk and model risk. For the risk types which have been recognized as material, the method of estimating internal capital is determined at the next stage. For the risk types recognized as being subject to monitoring in the Bank and the entities in the Bank's Group, the current values of materiality ratios and their thresholds are compared semi-annually and annually. The entities in the Bank's Group may consider other risk types to be material in these entities, taking into account the specific nature and scale of their operations and the market in which an entity operates. For these risk types, the Bank verifies the risk materiality at the Bank's Group level. The entities in the Bank's Group participate in assessing the materiality of risk types, which is initiated by the parent and assessed at the Bank's Group level;
- 2) risk measurement and assessment risk measurement that includes determining risk measures adequate to the type and materiality of a risk, data availability, and the quantitative measurement of the risk by means of defined measures, as well as a risk assessment that consists of determining the volume or scope of the risk from the perspective of achieving risk management objectives. Risk measurement involves carrying out tasks related to measuring risks for pricing policy purposes as well as stress tests and reverse stress tests which are elements of reliable risk assessment. Stress tests are carried out to determine the expected impact of assumed events on the results of the Bank and the Bank's Group (e.g. profits or capital, etc.). On the other hand, a reverse stress test is a rigorous test of the ability of the Bank and the Bank's Group to survive. Moreover, the Bank also performs comprehensive stress tests (CSTs) which include analysing the impact of changes in the Bank's environment and functioning on the financial position of the Bank and the Bank's Group;
- 3) risk control which consists of defining the tools used to diagnose or mitigate risk levels in the individual areas of operation of the Bank and the Bank's Group. Risk control involves determining risk controls tailored to the scale and complexity of the operations of the Bank and the Bank's Group, in particular in the form of monitored strategic tolerance limits for individual risk types, and if such limits are exceeded, management action is taken;
- 4) risk forecasting and monitoring which consists of preparing risk level forecasts on a regular basis and monitoring deviations of the actual values from the forecasts or the assumed points of reference (e.g. limits, thresholds, plans, prior period measurements, recommendations and guidance issued by an external supervisory and control authority), as well as conducting specific, reverse and comprehensive stress tests. Risk level forecasts are subject to verification. Risk is monitored at a frequency adequate to the materiality of a given risk tupe and its volatility.
- 5) risk reporting which consists of informing the Bank's bodies regularly of the results of risk measurement or risk assessment, the activities undertaken and the recommended activities. The scope, frequency and form of reporting are tailored to the management level of the addressees. In the event of the Bank's potential liquidity problems, the Supervisory Board is informed immediately of the Bank's liquidity level, threats and the remedial measures being undertaken, as well as situations which require launching capital emergency actions and a recovery plan for the Bank or the Bank's Group and in the case of occurrence of material operating events or security incidents;
- 6) management actions which consist, in particular, of issuing internal regulations that determine the process of managing individual risk types, define risk tolerance levels, establish limits and thresholds, issuing recommendations, making decisions, including decisions regarding the use of tools supporting risk management. Management actions are aimed at shaping the risk management process and influencing the risk level.

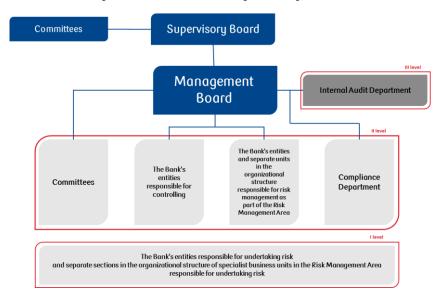
Risk management in the Bank takes place in all the Bank's units.

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Chart 2.1. Bank's risk management organisation

Organizational structure of banking risk management



The risk management process is supervised by the Supervisory Board which regularly receives information on the risk profile of the Bank and the Bank's Group and on the most important risk management activities.

The Supervisory Board is supported by the following committees, including:

- 1) Appointments and Remuneration Committee of the Supervisory Board (SBARC);
- 2) Risk Committee of the Supervisory Board (SBRC);
- 3) Audit Committee of the Supervisory Board (SBAC)

The SBARC supports the Supervisory Board in its statutory duties and tasks arising from the legal regulations, with regard to shaping and pursuing the Policy of Remuneration of the employees of the Bank and the PKO Bank Polski S.A. Group. The SBARC is described in more detail in Chapter "10. Remuneration policy" of this Report.

The Risk Committee of the Supervisory Board supports the Supervisory Board by, among other things, formulating opinions on the Bank's overall, current and future readiness to take risks, taking into account the risk profile of the entities in the Bank's Group, as expressed, in particular, in the strategic limits of tolerance for individual risk types, formulating opinions on solutions related to mitigating the risk of its operations, supporting the Supervisory Board in supervising the implementation of the risk management system in the Bank by the Management Board, in assessing the adequacy and effectiveness of the risk management system, as well as in supervising the implementation of the risk management strategu.

In 2020, five meetings of the SBRC and one teleconference of this Committee took place, using means of direct remote communication, and eight meetings of the SBAC and one teleconference of this Committee took place, using means of direct remote communication.

The Audit Committee of the Supervisory Board supports the Supervisory Board, in particular, by monitoring the financial reporting process and performing financial audit activities, as well as controlling the independence of the registered auditor and the entity authorized to audit financial statements. The SBAC also supports the Supervisory Board by monitoring the adequacy and effectiveness of the internal control system, including the adequacy and effectiveness of the control functions of the compliance unit and the internal audit unit, as well as monitoring the effectiveness of the risk management system, in particular by analysing the information received from the Risk Committee.

As far as risk management is concerned, the Management Board is responsible for strategic risk management, including supervising and monitoring the activities undertaken by the Bank in the area of risk management and the volume and profile of the risk related to the activities of the entities in the Bank's Group. The Management Board takes the most important decisions affecting the Bank's risk profile and adopts the Bank's internal regulations concerning risk management.

The following committees functioning within the Bank support the Management Board in risk management:

- 1) Risk Committee (RC);
- 2) Assets & Liabilities Committee (ALCO);
- 3) Bank's Credit Committee (BCC);
- Operational Risk Committee (ORC).

The RC monitors the integrity, adequacy and effectiveness of the risk management system, capital adequacy and the implementation of the risk management policies in compliance with the Bank's strategy, and it analyses and evaluates the application of the strategic risk tolerance limits defined in the Risk Management Strategy of PKO Bank Polski S.A. and the Bank's Group. The RC supports the Management Board in the risk management process by formulating recommendations and making decision on capital adequacy and the effectiveness of the risk control sustem.

In 2020, eight meetings of the Risk Committee took place.

The ALCO manages the Bank's assets and liabilities by influencing the structure of the Bank's balance sheet and off-balance sheet items in a manner conducive to achieving the optimum financial result. The Committee supports the Management Board in the activities of the Bank

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and the Bank's Group, related to shaping the balance sheet structure, capital adequacy management, profitability management, taking into account the specific nature of the operations and the generated risk, financial risk management, including market risk and liquidity risk, business risk and both settlement and pre-settlement credit risk of wholesale market transactions.

In 2020, the ALCO made decisions at 32 meetings.

The BCC issues opinions and makes credit decisions in respect of individual, quantitatively material credit exposures or issues recommendations in this respect for the Management Board, issues recommendations and makes decisions regarding the management of non-performing receivables, as well as decisions related to the approval of credit risk models and parameters and the results of validation of such models and accepts credit risk reports.

In 2020, the BCC made decisions by circulation and at 58 meetings.

The ORC supports the Management Board in operational risk management by making decisions, in particular, concerning the AMA approach and operational risk management tools used in the Bank, as well as issuing recommendations and guidance regarding the activities related to operational risk management. The ORC formulates opinions and recommendations regarding operational risk management in the entities in the Bank's Group, which are forwarded as part of the Bank's corporate governance of those entities.

In 2020, the ORC made decisions electronically and at 12 meetings.

The ALCO, BCC, ORC, RC, the Management Board, SBRC, SBAC and the Supervisory Board receive periodical reports concerning individual risk types and capital adequacy.

The risk management system is implemented on three independent complementary levels:

- 1) the first level comprises organizational structures responsible for product management, sales of products and customer support as well as other structures which carry out risk-generating operating tasks and which function based on internal regulations. This function is performed in all of the Bank's units and the entities in the Bank's Group. The Bank's units implement appropriate risk controls (in particular limits) which have been designed by the Bank's units situated on the second level, and ensure compliance with such limits through appropriate controls. Furthermore, the entities in the Bank's Group are obliged to comply with the principles of consistency and comparability of risk assessment and control in the Bank and the entities in the Bank's Group, taking into account the specific nature of an entity's business and the market in which it operates;
- 2) the second level comprises the activities of the compliance unit, as well as identification, measurement, assessment or control, monitoring and reporting material risk types and the identified threats and irregularities; those tasks are carried out by specialized organizational structures operating based on the Bank's internal regulations; the objective of those structures is to ensure that the operations carried out on the first level are properly designed in the Bank's internal regulations, and that they effectively mitigate risk, support risk measurement, assessment and analysis and the effectiveness of the operations. The second level supports undertaking activities aimed at eliminating adverse deviations from the financial plan affecting the quantitative strategic risk tolerance limits. This function is carried out, in particular, in the Risk Management Area, Compliance Department, the Bank's entities responsible for controlling, and the relevant committees;
- 3) the third level comprises the internal audit which conducts independent audits of the elements of the Bank's management system, including the risk management system and the internal control system; the internal audit operates separately from the first and second levels and can support the activities carried out on these levels through consultations, but without the possibility of influencing on the decisions making. This function is carried out in accordance with the Bank's internal regulations concerning the principles of the functioning of the internal control system.

The independence of the levels consists of remaining organizationally separate in the following areas:

- 1) the second level function as regards the development of system solutions is independent of the first level function;
- 2) the third level function is independent of the first and second level functions;
- 3) the compliance risk management function reports to the President of the Management Board.

In 2020, the Bank's units responsible for managing material risk and other risks identified in the Bank's operations, within the scope of their respective competences, were situated in: the Banking Risk Division, Corporate Receivables Department, Restructuring and Debt Collection Centre, Outsourcing and Sale of Receivables and Isolated Receivables Department, Retail Customer Credit Risk Centre and Corporate Customer Credit Risk Centre, which are supervised by the Vice-President of the Management Board responsible for the Risk Management Area, and in the Compliance Department supervised by the President of the Management Board responsible for the Area of the President of the Management Board.

The objective of the Banking Risk Division is to develop and implement systemic solutions for managing risks that have been identified as material, to manage capital adequacy, and to initiate and coordinate integrating activities in relation to risk management in the Bank's Group.

As far as risk management is concerned, the Banking Risk Division is responsible for, in particular:

- 1) identifying risk factors and sources of risk;
- 2) measuring, assessing, controlling as well as monitoring and reporting the risk level on a regular basis;
- 3) coordinating Strategy-related activities;
- 4) measuring and assessing capital adequacy;
- 5) preparing recommendations for the Management Board or the committees on the acceptable risk level;
- 6) developing and formulating opinions on the Bank's internal regulations concerning risk and capital adequacy management;
- 7) developing IT systems and applications designed to support risk and capital adequacy management;
- 8) coordinating the implementation of coherent risk management standards in the Bank's Group;
- 9) validating models used in risk management.6

The Corporate Receivables Department is responsible for, in particular:

1) managing the acquired non-performing receivables, as defined in the Bank's separate internal regulations, including developing and implementing the optimal manner of recovering such receivables;

<sup>6</sup> The validation of models is under the direct supervision of the Vice-President of the Management Board responsible for the Risk Management Area.

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- 2) cooperating with the entities in the Bank's Group in assessing customer or transaction risk and developing a strategy for dealing with non-performing receivables from the same customers;
- 3) preparing proposals for outsourcing the collection or sale of non-performing receivables;
- 4) foreclosing property as a result of the collection of receivables;
- 5) reviewing and classifying the receivables managed by the Department and the off-balance sheet liabilities granted, and determining the amounts of write-downs for impairment related to the risk of the Bank's operations.

The Restructuring and Debt Collection Centre is responsible for, in particular:

- 1) developing systemic solutions, including the Bank's internal regulations, applications and tools supporting the restructuring and debt collection process and the process of monitoring delays in repayment;
- 2) recovering receivables through their restructuring and collection, as well as improving the effectiveness of such activities;
- foreclosing and managing property as a result of the collection of receivables;
- 4) intervention measures as part of monitoring delays in the collection of receivables from individual and institutional customers of the Retail Market Area.

The Outsourcing and Sale of Receivables and Isolated Receivables Department is responsible for, in particular:

- 1) participating in identifying non-performing receivables which are saleable or outsourceable;
- 2) preparing proposals for taking measures related to sale and outsourcing of non-performing receivables and drafting related agreements;
- 3) monitoring the performance of agreements on outsourcing and sale of non-performing receivables;
- 4) selling selected non-performing receivables;
- 5) cooperating with the law enforcement bodies and the judiciary as well as other institutions in the effective collection of non-performing receivables and securing the Bank's interests;
- 6) ensuring the proper functioning of the Interbank Commercial Information System Bank Register at the Bank and cooperating with the Polish Banks Association in this regard;
- 7) dealing with Customers' complaints and requests (reports) concerning non-performing receivables.

The Retail Customer Credit Risk Centre is responsible for, in particular:

- 1) designing and shaping an effective credit risk assessment system related to financing customers served within the Retail Market Area and the Enterprise Banking, Analysis and Administration Area, including credit risk assessment models, the Bank's internal regulations regarding credit risk assessment policies and methodologies as well as tools that support processes;
- 2) assessing and taking credit risk within the powers granted, and monitoring the customer and transaction credit risk.

The Corporate Customer Credit Risk Centre is responsible for, in particular:

- 1) assessing and taking credit risk within the powers granted, and monitoring the customer and transaction credit risk;
- 2) improving and streamlining lending processes and the IT tools used in carrying out the tasks;
- 3) developing an effective corporate customer risk assessment system that ensures an adequate level of the cost of risk;
- 4) designing and shaping the credit policy assumptions for customers' credit portfolios, including industry-specific policies, and measuring the risk parameters of corporate portfolios;
- 5) managing the Bank's exposure concentration risk.

As regards risk management, the Compliance Department is responsible for, in particular:

- 1) managing compliance risk;
- 2) managing conduct risk;
- 3) managing reputation risk;
- 4) organizing and monitoring the control function.

The Bank supervises the functioning of the individual entities in the Bank's Group. As part of such supervision, the Bank supervises their risk management systems and supports their development, and it also takes into account the level of risk of the activities of the individual entities as part of the risk monitoring and reporting system at the Bank's Group level.

The policies and manner of assessment of individual risk types in the entities in the Bank's Group are defined in the internal regulations introduced by those entities. The entities in the Bank's Group develop and update their internal regulations concerning the management of individual risk types after consulting the Bank and taking into account the recommendations formulated by the Bank as well as the provisions of the Risk Management Strategy of PKO Bank Polski S.A. and the Bank's Group. The internal regulations of the entities in the Bank's Group, concerning risk management, take into account:

- 1) the principle of consistency and comparability of the methods of assessing the individual risk types in the Bank and the entities in the Bank's Group;
- 2) the structure of the Bank's Group and the relationships between the Group entities;
- 3) the specific nature and scale of operations of an entity in the Bank's Group and the market in which it operates;
- 4) the risk types managed by the entities in the Bank's Group, arising from the specific nature of their operations.

At least once a year, the Bank's units in the Banking Risk Division and the Compliance Department review the Risk Management Strategy of PKO Bank Polski S.A. and the Bank's Group, including, in particular, the strategic risk tolerance limits, in order to tailor them to the current and forecasted market conditions and the needs of the Bank and the Bank's Group. In justified cases resulting from significant changes in macroeconomic conditions or on the basis of the results of the stress tests performed, a review may be conducted more frequently than once a year. Moreover, the risk management methods and the risk measurement or assessment systems are tailored to the scale and complexity of risk, the Bank's current and planned operations and its environment, and they are verified and validated periodically.

In the entities in the Bank's Group, risk management is supervised, in particular, by involving the Bank's units in the Risk Management Area and the Compliance Department, the Planning and Controlling Department or the relevant committees operating in the Bank in the process of formulating opinions on the transactions of the entities in the Bank's Group in accordance with the Bank's separate internal regulations. At least once a year, a list of the key entities in the Bank's Group is drawn up, which have a significant impact on the risk profile of the Bank's Group. For those entities, the Bank's units in the Risk Management Area and the Compliance Department, in accordance with the Bank's separate internal regulations, formulate an opinion on the approach to strategic tolerance limits for the risks specific to a given entity and the method of reporting them.

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The priority of the Bank's Group is to maintain its strong capital position, including effective capital adequacy management, to support Polish enterprises, customer satisfaction, innovations, involvement in creating new market standards, counteracting cyber threats, while maintaining the priorities with regard to business effectiveness and effective cost control, an adequate level of own funds, and an appropriate assessment and level of risk.

To this end, the following activities were carried out in 2020:

- 1) The Bank, together with eight other banks and the Polish Financial Supervision Authority, and assisted by two other institutions from the financial safety net, worked on the proposal of the Chair of the Board of the Polish Financial Supervision Authority regarding loans in foreign currencies. The Bank analyzed the benefits and risks of possible options for proceeding with foreign currency mortgage loans and started preparatory work to offer settlements to clients. In the Bank's opinion, the conclusion of settlements will eliminate the foreign exchange risk on the part of clients, and the Bank will reduce the legal risk and uncertainty as to the direction of final court decisions and their financial consequences.
- 2) In 2020, the PKO Bank Polski S.A. Group increased its portfolio of issued short-term bonds (mainly 3-6 month bonds) from PLN 3.7 billion as at the end of 2019 to PLN 5.0 billion as at the end of 2020.
- 3) In 2020, the Group repaid the financing received from the Council of Europe Development Bank, and it also carried out a partial early redemption of its own issues in EUR and USD under the EMTN programme.
- 4) Within the Bank's Group, the portfolios of mortgage loans previously granted by PKO Bank Polski S.A. are gradually transferred to PKO Bank Hipoteczny S.A.. The value of the portfolio transferred in 2020 amounted to approx. PLN 341 million.
- 5) The transactions conducted in 2020 within the Bank's Group with the related entities and the related parties of the Bank's Group did not have a significant impact on the Bank's risk profile.

#### 2.2. Comprehensive stress tests and reverse stress tests

Comprehensive stress tests are complementary to stress tests specific to individual types of risk, and they take into account collectively identified risks, in particular the risks considered material from the perspective of the Bank or the Bank's Group. They include analysing the impact of changes in the macroeconomic environment or the functioning of the Bank's Group on the financial position of the Bank's Group, in particular: the income statement, the statement of financial position, own funds, capital adequacy (including own funds requirements), internal capital, capital adequacy measures, credit portfolio quality, and selected liquidity measures and indicators initiating Recovery Plans. Calculations are performed using the Bank's internal models, taking into account the macroeconomic assumptions made. The data is analysed with a high degree of detail, taking into account the segmentation into portfolios and product types.

Comprehensive stress tests comprise periodical and supervisory tests. Periodical tests are performed on an annual basis, over a three-year time horizon, in order to assess the risk of macroeconomic changes and to update the Recovery Plan. The stress scenarios used to assess the level of risk of macroeconomic changes assume a shock weakening of the economy compared with the baseline scenario, reflecting the historical cases of global financial crises. The stress scenarios for the purposes of the Recovery Plan, in accordance with the regulatons of the Banking Law, are used to estimate the impact of harsh changes in the macroeconomic environment or the functioning of the Bank and the Bank's Group on the position of the Bank and the Bank's Group in crisis conditions and to verify the effectiveness of recovery measures..

Supervisory tests are conducted at the request of external supervisory authorities, over a time horizon set by the supervisory body, based on the macroeconomic and financial variables contained in the scenarios given by the supervisory authorities.

Comprehensive stress tests collectively cover the following risk types:

- 1) credit and concentration risks;
- 2) market risk;
- 3) liquidity risk;
- 4) operational risk;
- 5) business risk;
- 6) leverage risk.

Reverse stress tests (RSTs) complement the results of comprehensive stress tests and are aimed at evaluating the Bank's resilience to macroeconomic changes. As regards the risk of macroeconomic changes, RSTs are conducted in the form of a sensitivity analysis and consist of formulating potential, negative scenarios related to the Bank's liquidity or capital adequacy, and then finding events contributing to their materialization.

#### 2.3. Internal control

The Bank has an internal control system in place, which forms part of the Bank's management system. The Bank's Management Board is responsible for the design, implementation and functioning of an adequate and effective internal control system. The Supervisory Board supervises the implementation and functioning of an adequate and effective internal control system and evaluates its adequacy and effectiveness, including the adequacy and effectiveness of the control function, the compliance unit, and the internal audit unit. The internal control system is evaluated on the basis of specific criteria, taking into account the information provided by the Bank's Management Board, the Audit Committee of the Supervisory Board, the compliance unit, and the internal audit unit, findings of the registered auditor and those resulting from the supervisory activities of the competent institutions, as well as other information and documents which are relevant to the adequacy and effectiveness of the internal control system. In this regard, the Bank's Supervisory Board is supported by the Audit Committee of the Supervisory Board which is responsible for, in particular, monitoring the effectiveness of the internal control system.

The objectives of the internal control system are to ensure:

- 1) effectiveness and efficiency of the Bank's operations;
- 2) reliability of the financial reporting;
- 3) compliance with the risk management policies at the Bank;
- 4) compliance of the Bank's operations with the generally applicable laws, the Bank's internal regulations, supervisory recommendations and the market standards adopted by the Bank.

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The Bank's internal control system is organized at three independent levels:

- 1) the first level consists of the Bank's organizational structures conducting operating activities, in particular: the sales of products and customer service, and the Bank's other organizational structures carrying out risk-generating operating tasks and functioning on the basis of the Bank's separate internal regulations;
- 2) the second level consists of the operations of the compliance unit and the identification, measurement, control, monitoring and reporting of individual risk types, as well as any threats and irregularities identified. These tasks are performed by specialized organizational structures operating on the basis of the applicable rules, methodologies and procedures; the objective of these structures is to ensure that the operations carried out on the first level are properly designed and that they mitigate risk in an effective manner and support the measurement and analysis of risk and business effectiveness;
- 3) the third level is represented by the operations of the internal audit unit which performs independent audits of the elements of the Bank's management system, including the risk management system and the internal control system.

The independence of the aforementioned levels consists of the organizational separation of:

- 1) the second level (as regards the development of systemic solutions) from the first level;
- 2) the third level from the first and second levels.

Within the internal control system, the Bank has the following separate elements:

- 1) the control function;
- 2) the compliance unit;
- 3) the internal audit unit.

The control function ensures compliance with the controls relating to, in particular, the risk management at the Bank and covers all of the Bank's units and the organizational positions within these units, which are responsible for carrying out the tasks assigned to this function.

The control function comprises:

- 1) the controls:
- 2) independent monitoring of the controls;
- 3) reporting within the control function.

The Bank sets apart and then the Management Board approves a list of material processes which are of significant importance to the achievement of the objectives of the internal control system and the Bank's business objectives and ensures periodical reviews of the processes taking place at the Bank, regarding their materiality.

Controls are embedded in the processes taking place at the Bank and in the systems or applications which support these processes. These controls are tailored to the objectives of the internal control system and to the specific nature of the operations conducted by the Bank. These controls are subject to independent monitoring at all levels of the internal control system. Such independent monitoring includes testing and evaluating adequacy and effectiveness, as well as current and periodical verification.

The compliance unit is an organizationally separate, independent unit which plays the key role in ensuring compliance and managing compliance risk understood as the risk of suffering legal sanctions, financial losses or reputation loss as a result of non-compliance on the part of the Bank, the Bank's employees or the entities acting on its behalf with the generally applicable laws, the Bank's internal regulations and the market standards adopted by the Bank.

The objective of the compliance unit is to shape the solutions to ensure compliance and manage compliance risk, as well as the identification, assessment, control, monitoring and reporting of such risk within the Bank.

Internal audit is an independent and objective assurance and advisory activity consisting of a systematic and orderly assessment of the individual areas of the Bank's operations and indicating operating directions which contribute to improving the quality and effectiveness of the Bank's operations.

The objective of the audit unit is:

- 1) as part of its assurance activities to evaluate the adequacy and effectiveness of the risk management system and the internal control system at the first and second levels of the internal control system, taking into account the adequacy and effectiveness of the risk controls and control mechanisms selected for auditing;
- 2) as part of its advisory activities adding value to and improving the processes in the Bank.

At the Bank, the following mechanisms are in place to ensure the independence of the compliance unit and the internal audit unit:

- approval of the Audit Charter and the rules for ensuring compliance and managing compliance risk by the Management Board and the Supervisory Board;
- 2) subordination of the compliance unit to the President of the Management Board;
- 3) functional subordination of the internal audit unit to the Audit Committee of the Supervisory Board and its administrative subordination to the President of the Management Board;
- 4) the internal audit unit, as a third level unit, not being subject to independent monitoring by the Bank's organizational units situated at the second level of the internal control system;
- 5) providing the directors of the aforementioned units with direct access to the members of the Management Board and the Supervisory Board;
- 6) participation of the directors of the aforementioned units in the meetings of the Management Board;
- 7) participation of the directors of the aforementioned units in the meetings of the Supervisory Board and the relevant Committees, when their agenda includes issues relating to the internal control system or risk management;
- 8) the director of the internal audit unit is appointed and dismissed and the amount of his remuneration is approved with the consent of the Supervisory Board, following a hearing;
- 9) the director of the compliance unit is appointed and dismissed following acceptance by the Supervisory Board, with dismissal being preceded by a hearing;

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- 10) approval of the amount of remuneration (including bonuses) of the director of the compliance unit by the Audit Committee of the Supervisory Board, taking into account the principle that the said remuneration may not differ from the remuneration of other persons performing key functions at the Bank and that it should not be directly dependent on the Bank's results of operations;
- 11) informing the PFSA of any changes of the directors of the aforementioned units, including the reasons for those changes;
- 12) providing the employees of the aforementioned units with access to all necessary information (including confidential and sensitive information), rooms and IT systems (without the possibility of interference in the system's resources), as well as communication with the Bank's employees, to the extent they deem necessary to perform their tasks;
- 13) non-participation of the employees of the aforementioned units in the performance of day-to-day business tasks;
- 14) providing solutions for controlling the remuneration of the employees of the aforementioned units which guarantee their independence and objectivity in the performance of their tasks and which enable employing people with appropriate qualifications, experience and skills;
- 15) protecting the employees of the aforementioned units from unjustified termination of their employment;
- 16) organizational separation of the aforementioned units and preventing the employees of these units from performing any duties other than those assigned to them;
- 17) providing the financial resources necessary for the effective performance of tasks and the systematic improvement of the skills and qualifications of the employees of the aforementioned units.

Information on irregularities, results of assessments and other material issues identified by the individual elements of the internal control system are presented in periodical reports addressed to the Management Board, the Audit Committee of the Supervisory Board, the Risk Committee or the Supervisory Board.

On the Bank's website (www.pkobp.pl), the Bank has placed a description of the internal control system which takes into consideration, in particular, a description of: the objectives of the internal control system; the roles of the Management Board, the Supervisory Board and the Audit Committee of the Supervisory Board; the three independent levels on which the internal control system is organized; the individual elements of the internal control system, i.e. the control function, the compliance unit, and the internal audit unit.

The entities in the Bank's Group have internal control systems which are tailored to the specific nature and character of the operations of these entities. These entities create and introduce internal regulations in which they specify, in particular, tasks relating to the control activities carried out within the internal control system and the division of responsibility for these tasks. The manner in which the internal control systems function in the companies is dependent on the scale and type of operations of the entities in the Bank's Group. In most of the entities, there are separate organizational units or positions which perform these functions, reporting directly to a given entity's Management Board or Supervisory Board. In cases justified by an entity's operating profile and its organizational structure (small entities with a limited range of activities), control activities are performed by their managers, without a structurally separated function or internal control unit. The Bank takes into account the role of the entities in the Bank's Group in identifying the material processes, paying attention to their contribution to ensuring the achievement of the objectives of the Bank's internal control system.

## 2.4. Assessment of the members of the management body, information on the recruitment policy and the assessment of suitability

The members of the Management Board are subject to a suitability assessment in accordance with the regulations in place at the Bank, i.e.:

- 1) the policy on the suitability of the members of the Management Board and key function holders at the Bank and a suitability assessment in the companies in the Bank's Group;
- 2) the rules and procedure for assessing the suitability of candidates for members of the Bank's Management Board and the members of the Bank's Management Board.

An assessment of the suitability of the members of the Bank's Management Board is carried out by the Appointments and Remuneration Committee of the Supervisory Board (SBARC), by accepting a relevant assessment report which is then approved by the Bank's Management Board. The sources of data for the report include, among other things, the information and documents submitted by candidates for members of the Management Board or persons already appointed to these positions. In making the assessment, the SBARC may be assisted by the Bank's unit responsible for human resources or an external consultant and other sources of information. The report is forwarded to the Bank's Supervisory Board which, when this is required by the regulations and the guidelines of the supervisory authorities, informs the PFSA of the results of the suitability assessments made.

The verification of suitability of the members of the Management Board and candidates for members of the Management Board takes the form of an individual and collective assessment. Such assessment is carried out as a preliminary assessment during the recruitment procedure before appointing a Management Board member, and as a periodical assessment carried out once a year for persons already holding these positions.

The assessment of suitability takes into account the criteria arising from the respective guidelines issued by a national or European supervisory authority and the requirements set out in the generally applicable laws, while focusing primarily on the assessment of qualifications understood as knowledge, experience and skills in the field of the relevant position, as well as in the field of Bank management rules, the structure of the Bank's Group and the related potential conflicts of interest, as well as reputation understood as a sufficiently good opinion. Additionally, the assessment involves the evaluation of integrity and adherence to ethical rules, the ability to formulate independent judgments and the possibility to dedicate a sufficient amount of time to performing the relevant duties, while taking into account the limitations on undertaking other activities.

The assessment of collective suitability, in addition to the guidelines and requirements set out in the generally applicable laws, is focused primarily on ensuring an appropriate "collective" level of knowledge, skills and experience in the context of the nature and scope of the Bank's operations and the material risks of such operations and in terms of the ability of the Management Board as a whole to manage the Bank.

In selecting the members of the Management Board, the principle of diversification of the members of the Management Board and the principles of succession management are taken into account. These principles are to ensure the continuity of decision-making and an appropriate selection of the members of the Management Board in order to reach a wide range of competences, knowledge and skills adequate to the position, which guarantee that the members of the Management Board will, individually and as a body, issue and make high quality independent opinions and decisions relating to the entire range of the Bank's operations. When assessing suitability, the Supervisory Board

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strives to achieve a gender balance in the composition of the Management Board. However, the objectives of diversification in the composition of the Management Board are taken into account in the selection process only to the extent that it does not adversely affect the functioning and suitability of the Management Board. More information on diversity is included in the Group Directors' Report of PKO Bank Polski S.A. for 2020, prepared together with the Directors' Report of PKO Bank Polski S.A. for 2020 (10. Corporate Governance, point 10.4 Diversity Policy).

In the course of the Management Board members carrying out their functions, pursuant to Article 395(2)(3) of the Commercial Companies Code, the Annual General Meeting acknowledges the fulfilment of duties by each member of the Management Board once a year. The acknowledgement of the fulfilment of duties represents a positive assessment of these people's work, irrespective of the approval of the Directors' Report by the Annual General Meeting, whereas the absence of such acknowledgement represents a negative assessment of a Management Board member's work and, in consequence, may lead to his or her dismissal from a company's body.

Due to the appointment of the members of the Management Board for a new term of office, on 27 May 2020 the assessment of suitability of the members of the Bank's Management Board was completed. As a result of the aforementioned process, it was found that each member of the Management Board meets the suitability requirements individually, and that the Management Board meets the collective suitability requirements as a body.

As at 31 December 2020, there were nine members of the Management Board. As at that date, all the members of the Bank's Management Board met the requirements set out in Article 22aa of the Banking Law.

#### 2.5. Credit risk

#### 2.5.1. Introduction

Credit risk is understood as the risk of incurring losses as a result of a customer defaulting on his or her liabilities to the Bank's Group or the risk of a decrease in the economic value of the Bank's Group receivables as a result of a deterioration in a customer's ability to service his or her liabilities.

The objective of credit risk management is to reduce losses on the loan portfolio and changes in the economic value of exposures on the wholesale market and to minimize the risk of the occurrence of non-performing loan exposures to an acceptable level, while maintaining the expected level of profitability and value of the loan portfolio by shaping on-balance sheet and off-balance sheet items.

The Bank and its subsidiaries in the Bank's Group are mainly guided by the following principles of credit risk management:

- 1) a lending transaction requires a comprehensive credit risk assessment expressed as an internal rating or a credit scoring;
- 2) credit risk related to lending transactions is measured at the time of examining an application for a transaction and on a regular basis, during the monitoring process, taking into consideration changes in external conditions and in the financial standing of borrowers;
- the credit risk of exposures which are material due to their risk level or value is assessed by credit risk assessment units which are independent of the business units;
- 4) a lending transaction's terms and conditions offered to a customer are dependent on the assessment of the level of the credit risk generated by the transaction;
- 5) lending decisions may be made only by authorized persons;
- 6) credit risk is diversified, in particular, in terms of geographical areas, industries, products and customers;
- 7) depending on the credit risk level, appropriate collateral is taken by the Bank to minimize potential future losses.

In the Bank's Group, as part of credit risk, the risk of foreign currency mortgage loans to households is identified. This risk is understood as the risk of incurring losses as a result of a customer defaulting on his or her liabilities to the Bank in respect of a foreign currency mortgage loan. This risk is considered material at the Bank.

#### 2.5.2. Risk identification

The identification of credit risk consists of recognizing current and potential sources and factors affecting the credit risk level in the current and planned lending activities of the Bank's Group.

Credit risk identification involves determining the factors which have a significant impact on the level of credit risk in the operations of the Bank's Group and estimating their potential impact on the operations of the Bank's Group.

Credit risk identification addresses both the existing and planned loan products offered to the customers of the Bank's Group, the processes of implementation of such products, using IT tools and databases.

#### 2.5.3. Credit risk measurement, estimation and assessment

Credit risk measurement, estimation and assessment take place at customer level, individual lending transaction level and at the level of the loan portfolios of the Bank's Group. The measurement or estimation of credit risk involves carrying out stress tests of the risk related to foreign currency and PLN credit exposures. The assumptions for conducting stress tests ensure a reliable measurement/ estimation of credit risk in the Bank's Group.

The measurement, estimation and assessment of the portfolio credit risk involves a regular assessment of that risk, taking into account the total credit exposures of the customers, as well as different aspects of the portfolio, such as customer groups and lending product groups.

#### 2.5.4. Credit risk measurement methods

Various measures are used to measure and assess portfolio credit risk, in particular:

1) Probability of Default (PD);

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- 2) Loss Given Default (LGD);
- 3) Credit Conversion Factor (CCF);
- 4) Expected Loss (EL);
- 5) Credit Value at Risk (CVaR);
- 6) the share and structure of non-performing credit exposures;
- 7) the coverage ratio of impaired loans (Coverage Ratio);
- 8) the cost of credit risk;
- 9) stress testing.

PKO Bank Polski S.A. systematically improves the scope of its credit risk parameters, taking into account the IRB approach and expands the scope of application of risk measures so as to fully cover the Bank's loan portfolio with this approach.

The results of portfolio credit risk measurement are taken into account, in particular, in determining the profitability and pricing terms of new or modified loan products, the optimum threshold values conditioning the customer's access to financing by the Bank, determining allowances for expected credit losses and establishing bonus rules.

The credit risk assessment process in the Bank's Group takes into account the requirements of the Polish Financial Supervision Authority, as set out in the PFSA's Recommendations. The Bank conducts analyses and stress tests, taking into account, in particular, the PFSA's Recommendations S, T and C. The Bank sets limits which constitute an internal tool determining the appetite for credit risk and concentration risk. These limits are a tool which supports the management of these risks. The stress tests and analyses concern the impact of potential changes in the macroeconomic environment on the quality of the Bank's loan portfolio, and their results are presented in reports for the Bank's bodies. The above information makes it possible to identify and take measures to reduce the negative effects of the impact of unfavourable market situations on the Bank's performance.

#### 2.5.5. Rating and scoring methods

The Bank assesses the risk of individual lending transactions using the scoring and rating methods which are created, developed and supervised by the Risk Management Area. The functioning of such methods is supported by specialist IT applications. The assessment method is defined in the Bank's internal regulations whose main purpose is to ensure a uniform and objective credit risk assessment in the lending process.

The process of credit risk assessment at the Bank takes into account the PFSA's requirements set out in Recommendation S on Good Practices in Management of Mortgage-Secured Credit Exposures and Recommendation T on Good Practices in Management of Retail Credit Exposure Risk

The Bank assesses the credit risk of individual customers from two perspectives: credit standing in terms of quantity and quality. The assessment of credit standing in terms of quantity consists of examining a customer's financial position, whereas the assessment of credit standing in terms of quality (the assessment of creditworthiness) covers credit scoring and the assessment of information about the customer's credit record, obtained from the Bank's internal databases and external databases.

In the case of companies and enterprises which meet specific criteria, the Bank assesses credit risk using the scoring method. This assessment concerns low-value, non-complex lending transactions and is performed in two perspectives: a customer's credit standing and creditworthiness. The assessment of credit standing consists of examining the customer's ability to settle his or her liabilities, whereas the assessment of the customer's creditworthiness covers credit scoring and the assessment of the past and present conduct of an enterprise and its owners (natural persons) in their lending dealings with banks. In other cases, the credit rating method is used.

The assessment of credit risk related to financing institutional customers is performed in two perspectives: the customer and the transaction. The measures of this assessment are the assessment of the customer's creditworthiness, i.e. credit rating, and the assessment of the transaction, i.e. the ability to repay the liability in a specific amount and within a specified time limit. The rating models for institutional customers are developed using the Bank's internal data, which ensures that they are tailored to the risk profile of the Bank's customers. The models are based on a statistical analysis of the relationship between default and a customer's risk scoring. The customer's risk assessment is dependent on the size of the enterprise for which the analysis is conducted and the industry in which the customer conducts business activities. In addition, the Bank uses a model for the assessment of enterprises credited using a specialist financing formula which makes it possible to adequately assess the credit risk of large projects consisting of financing real estate (e.g. office space, retail space, storage space) and infrastructure projects (e.g. telecommunications, industrial, and public utility infrastructure).

Risk assessment models are subject to monitoring at least once a quarter in accordance with the Bank's internal regulations regarding periodical verification of credit risk models. They are also subject to regular independent validation conducted by the Model Validation Department.

The rating and scoring information is widely used at the Bank in credit risk management within the system of competences to make lending decisions and within the system for credit risk measurement and reporting.

#### 2.5.6. Credit risk control

Credit risk control consists of defining tools for diagnosing the credit risk level, applying credit risk controls to reduce the level of that risk and complying with the controls as part of credit risk management, both in lending processes and at portfolio level.

The Bank and the Bank's Group use, in particular, the following risk control tools and mechanisms to manage credit risk:

- strategic credit risk and concentration risk tolerance limits;
- 2) internal credit risk or concentration risk limits:
  - a) limits which define the level of tolerance for portfolio credit risk and concentration risk;
  - b) industry-specific limits;
  - c) competence limits;
- 3) verification of the quality of lending processes;
- a branch's rating;

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5) thresholds initiating risk analysts' participation in credit risk assessment.

The Bank and the Bank's Group set internal limits of tolerance for portfolio credit risk, in particular, with regard to:

- industry segments;
- 2) mortgage-secured credit exposures and retail credit exposures;
- 3) loan portfolio quality;
- 4) portfolio structure by product/segment/currency/distribution channel;
- 5) the maximum and individual ratios of the expenditures related to servicing loan and financial liabilities to individual customers' income;
- 6) duration of a lending transaction.

The Bank controls the level of its credit exposure to its customers or groups of related customers within the meaning of the Banking Law by setting the maximum level of powers required to make lending decisions concerning lending transactions, including changes in their terms and conditions, and the maximum limits of the competences for these levels, as referred to in the Bank's internal regulations concerning the segregation of competences to make lending decisions. As part of monitoring the competence limits, the Bank verifies, in particular, the level of the lending competences of the authorized persons and the validity of the lending competence certificates awarded to these persons.

The Bank and the entities in the Bank's Group monitor and control the utilization of strategic credit risk tolerance limits and internal limits on a monthly and quarterly basis. The results of the monitoring are presented in the monthly information for the members of the Risk Committee and in the quarterly or monthly report on credit risk at PKO Bank Polski S.A., respectively. Where the level of utilization of a strategic limit exceeds the set threshold, the Bank initiates measures to prevent the set level from being exceeded.

#### 2.5.7. Credit risk forecasting and monitoring

Forecasting credit risk and concentration risk consists of predicting the future level of credit risk and concentration risk, taking into account the assumed projection of the development of lending activities and external and internal events. Monitoring credit risk consists of monitoring deviations of the actual values from the forecasts or the assumed points of reference (e.g. limits, thresholds, plans, prior period measurements, recommendations and guidance issued by an external supervisory and control authority), as well as conducting specific and comprehensive stress tests.

Risk level forecasting is subject to backtesting.

Credit risk is monitored for individual lending transactions and for portfolios.

Credit risk monitoring for individual lending transactions is defined, in particular, in the Bank's internal regulations concerning:

- 1) the assessment of the Bank's credit risk related to financing its customers;
- 2) customer assessment methodologies or methods;
- 3) identification of groups of related entities;
- 4) evaluation of collateral and inspection of real estate and investment projects;
- 5) recognizing allowances for expected credit losses;
- 6) the Early Warning System (EWS);
- 7) operating activities within the lending process.

In order to reduce the time of response to the observed warning signals indicating an increase in the credit risk level, the Bank uses and develops an EWS IT application as well as scoring models used for behavioural assessment.

#### 2.5.8. Risk concentration

The objective of concentration risk management is to ensure a safe loan portfolio structure by mitigating the risks arising from excessive concentrations of exposures which have the potential to generate losses large enough to threaten the financial standing of the Bank's Group or its ability to carry on its core operations or lead to a significant change in the risk profile of the Bank's Group.

The Bank's Group identifies concentration at portfolio level and concentration at entity level.

The Bank's Group monitors exposure concentration risk in relation to:

- 1) exposures to individual customers and groups of related customers, including large exposures;
- 2) exposures to groups of customers or loan portfolios exposed to a single risk factor.

The risk of concentration of exposures to individual customers and groups of related customers is monitored in relation to the exposure concentration limit, where the total individual exposure may not exceed 25% of consolidated own funds.

In the process of monitoring the concentration of exposures at entity level, the Bank takes into account:

- 1) the daily monitoring of the level of concentration of large exposures within the meaning of Article 392 of the CRR (if an exposure reaches or exceeds 10% of the Bank's capital, the Bank immediately informs the PFSA);
- a monthly check of the utilization of the limits arising from Article 395(1) of the CRR and from Article 79a(4) of the Banking Law;
- 3) a quarterly check of internal limits on the risk of concentration at entity level;
- 4) identification of warning signals and initiating measures aimed at preventing limits from being exceeded;
- 5) performing stress tests for concentration risk (including scenarios which are the input for comprehensive stress tests that make it possible to assess the impact of correlated factors of credit risk, interest rate risk, currency risk, operational risk and liquidity risk on the level of the Bank's expected credit loss).

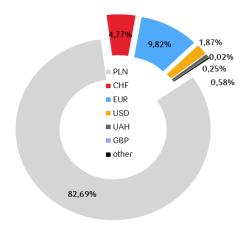
Moreover, the Bank's Group analyses concentration risk for:

- 1) geographical regions;
- currencies;
- 3) industries;
- 4) mortgage-secured credit exposures;
- 5) the largest entities;
- 6) the largest groups.

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Chart 2.1. Capital Group credit portfolio currency structure (balance and off-balance)



EUR-denominated exposures constitute the largest part of the foreign currency exposure of the Bank's Group, and they relate to the Bank's loan portfolio. The share of these loans in the foreign currency portfolio amounted to 56.72% as at the end of 2020, which represents a 8.41% increase compared with the end of 2019. Another group of foreign currency loans are loans in CHF which represented 27.54% of the Group's foreign currency portfolio as at the end of 2020, which represents a 9.82% drop compared with the end of 2019.

Table 2.1. Exposures towards the 10 biggest clients

Nie	203	20	2019						
No.	Value*	Own funds percentage	Value*	Own funds percentage					
1	2 831	6,8%	3 793	9,6%					
2	2 453	5,9%	3 753	9,5%					
3	2 367	5,7%	2 900	7,4%					
4	2 273	5,5%	2 718	6,9%					
5	2 268	5,5%	2 679	6,8%					
6	2 121	5,1%	2 584	6,6%					
7	2 047	4,9%	2 453	6,2%					
8	1 865	4,5%	2 271	5,8%					
9	1 593	3,8%	1 793	4,5%					
10	1 310	3,2%	1 548	3,9%					
Total	21 127	50,9%	26 490	67,2%					

<sup>\*</sup> Total (on-balance sheet and off-balance sheet) exposure to non-bank customers, which is the basis for determining the exposure concentration limit. The chart does not include any items which are excluded from the concentration limit.

As at 31 December 2020 and as at 31 December 2019, the concentration limits were not exceeded. As at 31 December 2020, the largest exposure of the Bank's Group to a single entity accounted for 6.8% of the consolidated own funds.

As at 31 December 2020, the largest concentration of the exposure of the Bank's Group to a group of related customers within the meaning of the Banking Law accounted for 8.7% of the consolidated own funds.

Table 2.2 Exposure towards 5 biggest capital groups\*

No.	2020		2019				
INU.	Value	Own funds percentage	Value	Own funds percentage			
1	3 623	8,7%	4 594	11,7%			
2	2 748	6,6%	3 840	9,7%			
3	2 666	6,4%	3 591	9,1%			
4	2 629	6,3%	3 183	8,1%			
5	2 453	5,9%	2 912	7,4%			
Total	14 119	34,0%	18 121	46,0%			

<sup>\*</sup>Total (on-balance sheet and off-balance sheet) exposure to groups of related non-bank customers, which is the basis for determining the exposure concentration limit. The chart does not include any items which are excluded from the concentration limit.

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Table 2.3. Geographical breakdown of exposures [template EU CRB-C]

							2020							
	a)	b)	c)	d)	e)	f)	g)	h)	i)	j)	k)	l)	m)	o)
,	Net value													
	Poland	Luxembourg	Germany	Sweden	Czech Republic	France	Spain	United Kingdom	Norway	Ukraine	Hungary	USA	Other countries	Total
1 Central governments or central banks	94 887	0	0	0	0	0	0	0	0	840	0	0	0	95 728
2 Regional governments or local authorities	12 902	0	0	0	0	0	0	0	0	0	0	0	0	12 902
3 Public sector entities	3 307	0	0	0	0	0	0	0	0	0	0	0	0	3 307
4 Multilateral development banks	0	2 513	0	0	0	0	0	0	0	0	0	0	0	2 513
5 International organisationse	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Institutions	5 281	10	783	5	2	634	6	538	62	483	1	200	597	8 603
7 Corporates	90 865	2 375	723	859	769	61	607	0	516	981	308	23	594	98 681
8 Retail	79 492	0	6	1	0	0	0	4	1	1 084	0	0	84	80 675
9 Secured by mortgages on immovable property	107 659	1	13	15	31	5	1	45	4	213	0	2	68	108 058
10 Exposures in default	4 081	0	6	0	0	0	0	10	0	61	0	0	6	4 163
11 Items associated with particularly high risk	2 997	0	0	0	0	0	0	0	0	0	0	0	0	2 997
12 Covered bonds	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Claims on institutions and corporates with a short-term credit assessment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Collective investments undertakings	4	0	0	0	0	0	0	0	0	0	0	0	0	4
15 Equity exposures	947	0	0	0	0	0	0	0	0	0	0	0	0	947
16 Other exposures	20 905	0	0	0	0	0	0	0	0	247	0	0	0	21 152
17 Total standardised approach	423 326	4 898	1 531	880	801	701	615	597	584	3 910	309	226	1 349	439 728
18 Total	423 326	4 898	1 531	880	801	701	615	597	584	3 910	309	226	1 349	439 728

The exposures secured with a mortgage on real estate, shown in the table under item 9, include retail exposures and exposures to enterprises, up to the amount effectively secured with mortgages on real estate.



Table 2.4. Concentration of exposures by industry [template EU CRB- D]																				
										2020										
	Agriculture, forestry and fishing	Mining and quarrying	Manufacturing	Electricity, gas, steam and air conditioning supply	Water supply; sewerage, waste management and remediation activities	Construction	Wholesale and retail trade; repair of motor vehicles and motorcycles	Transportation and storage	Accommodation and food service activities	Information and communication	Financial and insurance activities	Real estate activities	Professional, scientific and technical activities	Administrative and support service activities	Public administration and defence; compulsory social security	Education	Human health and social work activities	Arts, entertainment and recreation	Other activities	Total
1 Central governments or central banks	0	0	0	0	0	0	0	0	0	0		0	0	0	85 011	0	0	0	999	95 728
2 Regional governments or local authorities	0	0	0	0	0	0	0	0	0	0	0	0	0	51	12 840	0	0	0	10	12 902
3 Public sector entities	0	0	0	0	1	0	0	0	0	0	0	0	2 502	0	19	96	645	42	1	3 307
4 Multilateral development banks	0	0	0	0	0	0	0	0	0	0	2 513	0	0	0	0	0	0	0	0	2 513
5 International organisationse	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Institutions	0	0	0	0	0	0	0	0	0	0	3 858	0	0	0	0	0	0	0	4 745	8 603
7 Corporates	381	2 861	21 064	9 959	745	4 409	11 604	4 317	624	5 586	23 389	4 722	260	559	21	29	570	419	7 160	98 681
8 Retail	736	91	4 189	72	325	2 913	5 494	3 941	656	476	295	5 867	910	314	110	97	812	248	53 130	80 675
9 Secured by mortgages on immovable property	62	4	3 812	72	57	535	1 868	312	403	64	21 781	3 568	100	89	0	124	181	62	74 964	108 058
10 Exposures in default	46	52	843	1	5	154	479	331	554	30	51	405	83	24	2	19	98	16	969	4 163
11 Items associated with particularly high risk	3	24	119	0	0	1 709	179	10	1	0	0	44	0	0	0	0	0	0	908	2 997
12 Covered bonds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Claims on institutions and corporates with a short-term credit assessment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Collective investments undertakings	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	4
15 Equity exposures	0	0	4	0	0	2	0	0	0	0	11	0	0	0	0	0	0	0	929	947
16 Other exposures	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21 152	21 152
17 Total standardised approach	1 228	3 032	30 032	10 104	1 133	9 722	19 625	8 911	2 238	6 157	61 618	14 605	3 853	1 038	98 004	367	2 305	786	164 969	439 728
18 Total	1 228	3 032	30 032	10 104	1 133	9 722	19 625	8 911	2 238	6 157	61 618	14 605	3 853	1 038	98 004	367	2 305	786	164 969	439 728

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#### 2.5.9. Impairment of credit exposures

In the area of impairment, the Bank's Group applies IFRS 9 which is based on the concept of expected losses.

The impairment model is applicable to financial assets which are not measured at fair value through profit or loss, including:

- 1) debt financial instruments comprising credit exposures and securities;
- 2) lease receivables;
- 3) off-balance sheet financial and guarantee commitments.

In accordance with IFRS 9, no expected credit losses are recognized for equity investments.

The impairment of credit exposures is measured as 12-month or lifetime expected credit losses on an asset. The horizon of the measurement of an expected loss is dependent on whether credit risk has increased significantly from the moment of the initial recognition of the asset. Due to this criterion, financial assets are allocated to 4 Stages:

- 1) Stage 1 assets in the case of which credit risk is not significantly higher than the credit risk on the date of their initial recognition, and no indication of impairment has been recognized for them;
- 2) Stage 2 assets in the case of which credit risk is significantly higher than the credit risk on the date of initial recognition of the exposure, but no indication of impairment has been recognized for them;
- 3) Stage 3 assets for which an indication of impairment has been recognized;
- 4) Stage 4 assets granted or purchased with an indication of impairment recognized (on the date of granting or purchasing) (POCI).

In order to assess a significant increase in credit risk for mortgage exposures and other retail exposures, the Bank's Group uses a model based on calculating the marginal PD, i.e. the probability of default in a specified month calculated from the date of origination of an exposure. The Bank identifies an indication of a significant increase in risk for a given exposure based on the comparison of probability-of-default curves over the exposure horizon as at the date of initial recognition and as at the reporting date.

In order to assess a significant increase in credit risk for institutional customers, the Bank's Group uses a model based on Markov chains. The curve of the maximum acceptable deterioration of credit quality over time, which is not identified as a significant increase in credit risk, is calculated on the basis of probabilities of default estimated based on the migration of customers between individual rating and scoring classes.

In order to identify other indications of a material increase in credit risk, the full qualitative and quantitative information available is used, including:

- 1) forbearance measures providing concessions to a borrower due to his or her financial distress;
- 2) delinquency in the repayment of a material amount of principal or interest of more than 30 days;
- a material increase in the probability of insolvency compared with the probability of insolvency on the date of initial recognition of a credit exposure;
- 4) early warning signals identified during the monitoring process, indicating a significant increase in credit risk;
- 5) a significant increase in the LTV ratio;
- 6) an analyst's assessment as part of the individualized analysis process.

The indications of default and impairment of a credit exposure include, in particular:

- 1) delinquency in the repayment of a material amount of principal or interest of more than 90 days;
- deterioration in the debtor's economic and financial position in the lending period, expressed by putting the debtor into a rating class or risk class indicating a significant threat to debt repayment;
- 3) the conclusion of a forbearance agreement or the application of relief in the settlement of a receivable due to economic or legal reasons resulting from a customer's distress (until the receivable is recognized as healed);
- 4) filing a petition in bankruptcy against a debtor, putting the debtor in liquidation or initiating enforcement proceedings against the debtor;
- 5) declaration of consumer bankruptcy by any of the co-borrowers.

Changes in the terms and conditions of an agreement, agreed with a debtor or an issuer, forced by their distress (forbearance measures introducing concessions which otherwise would not be granted) are considered forbearance and an indication of impairment. The objective of forbearance is to restore a debtor's or an issuer's ability to fulfil their obligations to the Bank's Group and to maximize the effectiveness of non-performing loan management, i.e. obtaining the highest recoveries possible while minimizing the related costs.

Changes in repayment terms made as part of forbearance may consist of:

- 1) dividing the past due debt into instalments;
- 2) changing the repayment formula (annuity instalments, decreasing instalments);
- 3) extending the lending period;
- 4) changing the interest rate;
- 5) changing the margin;
- 6) reducing the debt.

Granting concessions recognized as indications of impairment as part of forbearance results in the recognition of a default event and the classification of a credit exposure in the non-performing exposure portfolio. The exposure is excluded from this portfolio (a forbearance agreement ceases to be recognized as an indication of impairment) after 12 months from the introduction of forbearance, provided that all past due payments and at least six instalments arising from an agreed schedule are settled during this period, and the customer's current financial position does not pose, in the Bank Group's opinion, a threat to his or her compliance with the terms and conditions of the forbearance agreement.

Exposures subject to forced forbearance cease to meet the criteria for exposures under forbearance status no earlier than after 24 months from the time this status ceases to be recognized as an indication of impairment, provided that the customer has repaid at least 12 instalments in the target amount and has no debt past due by more than 30 days as at the end of that period.

Information concerning forbearance at the Bank's Group level is described in the consolidated financial statements of the PKO Bank Polski S.A. Group as at and for the year ended 31 December 2020 (Note 65).

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Under the portfolio approach, the expected loss is determined as the product of credit risk parameters: probability of default (PD), loss given default (LGD) and exposure at default (EAD), with each of these parameters having the form of a vector with the number of months covering the credit loss estimation horizon. In the case of exposures classified as Stage 1, the Bank uses a 12-month expected loss estimation horizon at most. In the case of exposures classified as Stages 2, 3 or 4, the expected loss is estimated over the horizon up to the maturity of an exposure or its renewal. With regard to retail exposures without a repayment schedule, the Bank determines such horizon based on behavioural data arising from past observations. The expected loss both throughout the exposure period and over a 12-month period is the total of expected losses in individual periods, discounted at the effective interest rate. In order to determine the value of an asset at the time of default in a given period, the Bank adjusts the parameter determining the exposure value at the time of default for future repayments arising from the repayment schedule and potential overpayments and underpayments.

The calculation of expected credit losses takes into account estimates concerning future macroeconomic conditions. As regards the portfolio analysis, the impact of macroeconomic scenarios is taken into account in the values of individual risk parameters. The methodology of calculation of risk parameters covers examining the dependence of the values of these parameters on macroeconomic conditions, based on historical data. For the purposes of calculating the expected loss, three macroeconomic scenarios based on own forecasts are used, namely the base scenario and two alternative scenarios. The range of the forecasted indicators includes the GDP growth rate, unemployment rate, WIBOR 3M, Libor CHF 3M, CHF/PLN exchange rate, property price index, and the NBP reference rate. The final expected loss is the average of the expected losses corresponding to the individual scenarios, weighted by the probability of the scenarios. The Bank's Group ensures the consistency of the macroeconomic scenarios used for calculating risk parameters with the macroeconomic scenarios used in credit risk budgeting processes.

In the event of identifying an indication of impairment of individually significant exposures, the expected credit loss on an exposure is determined using the individual method as the difference between its gross carrying amount (in the case of an off-balance sheet credit exposure – the value of its on-balance sheet equivalent) and the present value of expected future cash flows determined taking into account possible scenarios regarding the performance of the agreement and management of the credit exposure, weighted by the probability of their implementation.

The individual method of measurement of the expected loss is also used for individually significant exposures which do not show any indications of impairment, in the case of which the use of portfolio parameters in the calculations would be unjustified due to the specific nature of the case.

Both the assessment of a material increase in credit risk and the calculation of the expected loss are performed on a monthly basis at individual exposure level. They use a computing environment which makes it possible to distribute the results to the Bank Group's internal units.

The indications for classifying credit exposures as non-performing items (at risk of default) are consistent with the indications of default and impairment.

Past due exposures include credit exposures in the case of which there is delinquency in principal or interest payments, concerning amounts exceeding the quantitative thresholds taken into account when recognizing the past due status as impairment.

As far as a specific credit risk adjustment is concerned, the Bank's Group uses the impairment loss on assets which was included in the Bank's Tier 1 funds, in accordance with the CRR and the CRR implementing rules.

Table 2.5. Total and average net amount of exposure [template EU CRB-B]

		20	)20	2019				
		a)	b)	a)	b)			
		Net value of exposures at the end of the period	Average net exposuresover the period	Net value of exposures at the end of the period	Average net exposuresover the period			
1	Central governments or central banks	95 728	88 683	74 970	67 892			
2	Regional governments or local authorities	12 902	12 574	12 165	12 220			
3	Public sector entities	3 307	3 251	3 266	3 165			
4	Multilateral development banks	2 513	1 993	1 068	754			
5	International organisations	0	0	0	0			
6	Institutions	8 603	9 346	10 166	9 730			
7	Corporates	98 681	96 170	86 392	87 368			
8	Of which: SMEs	15 654	14 085	7 477	8 047			
9	Retail	80 675	81 267	84 667	84 876			
10	Of which: SMEs	26 129	25 778	28 436	28 612			
11	Secured by mortgages on immovable property	108 058	110 490	106 897	100 216			
12	Of which: SMEs	7 823	5 512	3 003	1 951			
13	Exposures in default	4 163	5 483	6 204	6 244			
14	Items associated with particularly high risk	2 997	2 814	3 110	1 935			
15	Covered bonds	0	0	0	0			
16	Claims on institutions and corporates with a short-term credit assessmen	0	0	0	0			
17	Collective investments undertakings	4	3	3	4			
18	Equity exposures	947	909	910	869			
19	Other exposures	21 152	19 954	16 455	16 165			
20	Total standardised approach	439 728	432 937	406 272	391 438			
21	Total	439 728	432 937	406 272	391 438			

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Table 2.6. Maturity of exposures [template EU CRB- E]

					2020		
		a)	b)	c)	d)	e)	f)
				Net e	xposure value		
		On demand	<= 1 year	> 1 year <= 5 years	> 5 years	No stated maturity	Total
1	Central governments or central banks	0	15 491	57 530	22 707	0	95 728
2	Regional governments or local authorities	1 738	24	119	11 010	11	12 902
3	Public sector entities	2 669	13	123	502	0	3 307
4	Multilateral development banks	0	0	0	2 513	0	2 513
5	International organisationse	0	0	0	0	0	0
6	Institutions	4 511	1 620	2 040	433	0	8 603
7	Corporates	21 647	6 827	28 747	38 852	2 608	98 681
8	Retail	6 518	15 114	20 942	38 005	96	80 675
9	Secured by mortgages on immovable property	2 352	208	2 954	102 543	0	108 058
10	Exposures in default	532	316	1 003	2 310	1	4 163
11	Items associated with particularly high risk	297	42	1 719	31	908	2 997
12	Covered bonds	0	0	0	0	0	0
13	Claims on institutions and corporates with a short-term credit assessment	0	0	0	0	0	0
14	Collective investments undertakings	4	0	0	0	0	4
15	Equity exposures	0	0	0	17	929	947
16	Other exposures	0	5 767	28	0	15 358	21 152
17	Total standardised approach	40 267	45 421	115 204	218 924	19 911	439 728
18	Total	40 267	45 421	115 204	218 924	19 911	439 728



Table 2.7. Credit quality of exposures by exposure classes and instruments [template EU CR1-A]

				202	20			
		a)	b)	c)	d)	e)	f)	
		Gross carrying values of		Specific credit risk	General credit risk	Accumulated	Accumulated write-offs	
		Defaulted exposures	Non-defaulted exposures	adjustment	adjustment	write-offs	(a+b-c-d)	
1	Central governments or central banks	0	95 731	3	0	0	95 728	
2	Regional governments or local authorities	0	12 935	33	0	0	12 902	
3	Public sector entities	0	3 314	7	0	0	3 307	
4	Multilateral development banks	0	2 513	0	0	0	2 513	
5	International organisations	0	0	0	0	0	0	
6	Institutions	0	8 603	0	0	0	8 603	
7	Corporates	0	99 641	960	0	0	98 681	
8	of which: SMEs	0	15 894	240	0	0	15 654	
9	Retail	0	0 81 817		0	14	80 675	
10	of which: SMEs	0	26 507	377	0	4	26 129	
11	Secured by mortgages on immovable property	0	109 008	950	0	0	108 058	
12	of which: SMEs	0	7 987	164	0	0	7 823	
13	Exposures in default	10 438	0	6 276	0	1 116	4 163	
14	Items associated with particularly high risk	117	2 989	110	0	6	2 997	
15	Covered bonds	0	0	0	0	0	0	
16	Claims on institutions and corporates with a short-term credit assessment	0	0	0	0	0	0	
17	Collective investments undertakings	0	4	0	0	0	4	
18	Equity exposures	0	947	0	0	0	947	
19	Other exposures	0	21 168	15	0	0	21 152	
20	Total standardised approach	10 556	438 669	9 497	0	1 137	439 728	
21	Total	10 556	438 669	9 497	0	1 137	439 728	
22	of which: Loans*	8 755	197 515	7 930	0	1 137	198 340	
23	of which: Debt securities*	0	0 111 489		0	0	111 475	
24	of which: Off-balance-sheet exposures*	467	80 870	596	0	0	80 741	

<sup>\*</sup> concerns PKO Bank Polski S.A..

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Table 2.8. Credit quality of exposures by industry [template EU CR1 B]

			20	020			
	a)	b)	c)	d)	e)	f)	
	Gross carryin	ng values of	Specific gradit sick adjustment	General credit risk adjustment	Accumulated	Net values	
	Defaulted exposures	Non-defaulted exposures	specific credit risk dojustifient	General Credit risk adjustment	write-offs	(a+b-c-d)	
Agriculture, forestry and fishing	102	1 182	56	0	9	1 228	
Mining and quarrying	63	2 990	22	0	1	3 032	
Manufacturing	2 000	29 332	1 300	0	39	30 032	
Electricity, gas, steam and air conditioning supply	8	10 156	60	0	0	10 104	
Water supply; sewerage, waste management and remediation activities	20	1 140	26	0	0	1 133	
Construction	665	9 819	762	0	70	9 722	
Wholesale and retail trade; repair of motor vehicles and motorcycles	1 337	19 302	1 014	0	112	19 625	
Transportation and storage	592	8 559	240	0	36	8 911	
Accommodation and food service activities	870	1 826	458	0	18	2 238	
Information and communication	38	6 150	32	0	6	6 157	
Financial and insurance activities	41	61 659	82	0	6	61 618	
Real estate activities	648	14 669	712	0	4	14 605	
Professional, scientific and technical activities	95	3 844	86	0	12	3 853	
Administrative and support service activities	77	1 037	76	0	4	1 038	
Public administration and defence; compulsory social security	0	98 037	33	0	0	98 004	
Education	52	333	18	0	1	367	
Human health and social work activities	678	1 658	31	0	1	2 305	
Arts, entertainment and recreation	23	815	52	0	1	786	
Other activities	3 247	166 160	4 438	0	816	164 969	
Total	10 556	438 669	9 497	0	1 137	439 728	

The gross carrying amount includes loans and borrowings, shares, bills, bonds, interbank deposits, derivative instruments, other assets and off-balance sheet items. The exposures presented in the table take into account

a breakdown by industry, without a breakdown by type of counterparty.

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Table 2.8a. Credit quality of exposures by industry such as developers, housing cooperatives (presented by type of the Bank's internal segmentation)

		2020										
	a)	b	)	c)	d)							
	Defaulted exposures	Non-defaulte	d exposures	Capaifia aradit siak adjustment	Net values							
	Gross carrying values of	Gross carrying values of	Ekspozycje pozabilansowe	Specific credit risk adjustment	(a+b-c)							
Construction (including: motorways, streets, bridges, finishing works)	223	826	2 605	363	3 291							
Developers	994	8 256	5 414	1 078	13 585							
Housing cooperatives	52	5 336	485	27	5 847							

The exposures to the construction sector totalling PLN 3 654 million include on-balance sheet exposures of PLN 1 049 million and off-balance sheet exposures of PLN 2 605 million.

Table 2.9. Credit quality of exposures by geography [template EU CR1-C]

				2020			
		a)	b)	c)	d)	e)	f)
		Gross carryin	g values of				Net values
		Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	(a+b-c-d)
1	Poland	10 385	422 217	9 276	0	1 134	423 326
2	Luksemburg	0	4 907	9	0	0	4 898
3	Ukraine	91	3 881	62	0	2	3 910
4	Germany	7	1 531	8	0	0	1 531
5	Sweden	0	882	1	0	0	880
6	Czech Republic	0	804	2	0	0	801
7	France	1	702	3	0	0	701
8	Spain	0	668	53	0	0	615
9	United Kingdom	12	588	3	0	0	597
10	Norway	0	587	3	0	0	584
11	Hungary	0	309	0	0	0	309
12	USA	0	226	0	0	0	226
13	Other countries	59	1 366	76	0	1	1 349
14	Total	10 556	438 669	9 497	0	1 137	439 728

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Table 2.10. Changes in the stock of general and specific credit risk adjustments [template EU CR2-A]

		2020
		Accumulated specific credit risk adjustment
1	Opening balance	6 669
2	Increases due to amounts set aside for estimated loan losses during the period	3 499
3	Decreases due to amounts reversed for estimated loan losses during the period	-773
4	Decreases due to amounts taken against accumulated credit risk adjustments	-669
5	Transfers between credit risk adjustments	0
6	Impact of exchange rate differences	71
7	Business combinations, including acquisitions and disposals of subsidiaries	0
8	Other adjustments	700
9	Closing balance	9 497
10	Recoveries on credit risk adjustments recorded directly to the statement of profit or loss	0
11	Specific credit risk adjustments directly recorded to the statement of profit or loss	6 199

Table 2.11. Changes in stock of defaulted and impaired loans and debt securities [template EU CR2- B]

		2020
		a)
		Gross carrying value defaulted exposures
1	Opening balance	10 348
2	Loans and debt securities that have defaulted or impaired since the last reporting period	2 267
3	Returned to non-defaulted status	-563
4	Amounts written off	-1 137
5	Other changes	-359
6	Closing balance	10 556

#### 2.5.10. Credit risk reporting

Credit risk reporting includes providing periodical information on the scale of exposure to credit portfolio risk.

The Bank prepares monthly and quarterly credit risk reports. In addition to the information concerning the Bank, the reports also contain information on the credit risk level of the entities in the Bank's Group in which a material credit risk level has been identified (among other things, in the KREDOBANK S.A. Group, PKO Leasing S.A. Group, and PKO Bank Hipoteczny S.A.).

Moreover, the Bank prepares daily, weekly, monthly and quarterly reports on credit exposures in respect of transactions in derivative instruments, concluded with financial institutions and non-financial institutional entities, with monthly and quarterly reports also concerning the Bank's Group. The reports contain information on credit exposures in respect of derivative instruments concluded with financial institutions and non-financial institutional entities as well as information on the utilization of limits. The users of the reports are mainly the BCC, ALCO, RC, the Management Board and the Supervisory Board.

#### 2.5.11. Credit risk related management activities

The objective of management activities is to shape and optimize the credit risk management system and the level of credit risk in the Bank's Group.

The management activities in credit risk management include, in particular:

- 1) issuing internal regulations governing the credit risk management system in the Bank and the Bank's Group;
- 2) issuing recommendations, guidelines on conduct, clarifications and interpretations of the internal regulations of the Bank and the Bank's Group;
- 3) making decisions regarding the acceptable level of credit risk, including, in particular, lending decisions;
- 4) designing and improving credit risk control tools and mechanisms which enable the credit risk level to be maintained within the limits accepted by the Bank and the Bank's Group;
- 5) designing and monitoring the functioning of controls in credit risk management;
- 6) designing and improving credit risk assessment methods and models;
- 7) developing and enhancing IT tools used in credit risk management;
- 8) planning activities and issuing recommendations and guidelines.

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The collateral policy plays a special role in determining the terms and conditions of lending transactions. The objective of the collateral policy pursued by the Bank and the entities in the Bank's Group is to properly hedge the credit risk to which the Bank's Group is exposed, including, in the first place, to establish the most liquid collateral. Collateral may be considered liquid if it can be sold without a significant reduction in its price and within a timeframe which does not expose the Bank to a change in the value of the collateral due to the fluctuation of prices which is typical of given collateral. The Bank's Group strives to diversify its collateral (both in terms of forms and the assets collateralized). The Bank's Group assesses collateral in terms of the actual possibility to use it as a potential source from which its claims may be satisfied.

#### 2.5.12. Use of credit risk and counterparty credit risk mitigation techniques

The main credit risk mitigating techniques include an adequate assessment of customer and transaction risk, a system of limits (as described in the sections above) and collateral for lending transactions.

The collateral policy of the PKO Bank Polski S.A. Group defines the rules for establishing and remeasuring collateral as well as the procedures to be followed if the limits used are exceeded, in order to hedge against risk. The relevant methods set out in the internal regulations of the PKO Bank Polski S.A. Group are used.

Market value is the basis for assessing the value of real estate, tangible collateral and rights. The market value of a collateralized asset is determined on the basis of an estimation made by the PKO Bank Polski S.A. Group or an appraisal prepared by an independent expert, verified in accordance with other regulations concerning the assessment of collateral, including the assessment of real estate.

The following factors are taken into account, in particular, in the assessment of collateral:

- 1) the assets, the economic and financial or the social and financial position of the entities which provide personal collateral;
- 2) the condition and market value of the tangible assets collateralized and their susceptibility to depreciation during the life of the collateral (the impact of technological obsolescence of the collateralized assets on their value);
- 3) the condition and market value of real estate and data adequate to the type of real estate which make it possible to estimate the level of risk related to the portfolio of a given type of collateral effectively and to manage such risk;
- 4) the potential economic benefits arising from a specific method of securing receivables, including, in particular, the possibility to reduce impairment losses;
- 5) the method of establishing collateral, including the typical duration and complexity of formalities, as well as the necessary costs (the costs of holding collateral and enforcement against the collateral), using the internal regulations concerning the assessment of collateral;
- 6) complexity, duration as well as the economic and legal conditions for the effective enforcement against collateral, in the context of enforcement limitations and the existing rules of distribution of the amounts obtained from individual enforcement or in the course of bankruptcy proceedings, debt seniority.

Taking specific types of collateral is dependent on the product and the customer segment.

In granting loans for financing residential and commercial real estate, collateral is mandatorily established in the form of a mortgage on real estate

Until collateral is established effectively (depending on the type of loan and its amount), temporary collateral in a different form may be taken.

In granting consumer loans, usually personal collateral (a guarantee under civil law or an aval) is taken or a bank account, a car or securities are collateralized.

Collateral for loans for financing companies and enterprises as well as corporate customers is established, among other things, on business receivables, bank accounts, movables, real estate or securities or in the form of a guarantee (commonly used in the case of companies and enterprises).

In calculating the own funds requirement for credit risk, the Bank's Group does not use any credit derivatives as collateral for risk in accordance with the CRR (Article 453 d).

Table 2.12. CRM techniques - overview [template EU CR3]

		2020											
		a)	b)	c)	d)	e)							
						Exposures secured by credit derivatives							
1	Total loans*	246 959	5 417	2 056	3 360	0							
2	Total debt securities	96 359	15 130	0	15 130	0							
3	Total exposures	343 318	20 547	2 056	18 490	0							
4	Of which defaulted	3 726	163	29	134	0							

<sup>\*</sup>The 'Total loans' line shows all exposures less debt securities which are contained in a separate line.

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Table 2.13. Standardised approach – credit risk exposure (excluding derivatives) and CRM effects [template EU CR4]

				20	020				
		a)	b)	c)	d)	e)	f)		
		Exposures before CCF a	nd CRM	Exposures post CCF and	CRM	RWAs and RWA density	RWAs and RWA density		
Ехро	osure classes	On-balance-sheet amount	Off-balance-sheet amount	On-balance-sheet amount	Off-balance-sheet amount	RWAs	RWA density		
1	Central governments or central banks	95 711	0	113 942	131	7 639	7%		
2	Regional government or local authorities	10 551	2 350	10 677	861	2 308	20%		
3	Public sector entities	549	2 758	510	1 263	861	49%		
4	Multilateral development banks	2 513	0	2 513	0	0	0%		
5	International organisations	0	0	0	0	0	0%		
6	Institutions	1 132	5 580	1 266	2 945	1 867	44%		
7	Corporates	55 526	41 266	37 390	10 854	46 300	96%		
8	Retail	64 519	16 139	62 385	3 934	45 976	69%		
9	Secured by mortgages on immovable property	105 861	2 196	105 787	551	61 067	57%		
10	Exposures in default	3 888	274	3 726	55	4 567	121%		
11	Exposures associated with particularly high risk	1 513	1 484	1 512	287	2 697	150%		
12	Covered bonds	0	0	0	0	0	0%		
13	Institutions and corporates with a short-term credit assessment	0	0	0	0	0	0%		
14	Collective investment undertakings	4	0	4	0	4	100%		
15	Equity	947	0	947	0	2 339	247%		
16	Other items	21 151	1	21 151	1	9 137	43%		
17	Total	363 865	72 051	361 809	20 882	184 761	48%		

The total exposure value does not include derivative instruments, repurchase transactions, securities or commodities lending or borrowing transactions, long settlement transactions or margin lending transactions of PLN 3 812 million.

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Table 2.14. Standardised approach - breakdown of exposures by asset class and risk weight [template EU CR5]

		2020																	
	Exposure classes		Risk weight														Total	Of which	
			2%	4%	10%	20%	35%	50%	70%	75%	100%	150%	250%	370%	1250%	Others	Deducted	Total	unrated
1	Central governments or central banks	109 901	0	0	0	671	0	0	0	0	833	0	2 669	(	0	C	0	114 073	0
2	Regional government or local authorities	0	0	0	0	11 538	0	0	0	0	0	0	0	(	0	C	0	11 538	11 478
3	Public sector entities	0	0	0	0	85	0	1 689	0	0	0	0	0	(	0	C	0	1 774	1 774
4	Multilateral development banks	2 513	0	0	0	0	0	0	0	0	0	0	0	(	0	C	0	2 513	2 513
5	International organisations	0	0	0	0	0	0	0	0	0	0	0	0	(	0	C	0	0	0
6	Institutions	0	0	0	0	1 227	0	2 727	0	0	256	2	0	(	0	C	0	4 211	0
7	Corporates	0	0	0	0	5	0	340	0	0	47 900	0	0	(	0	C	0	48 244	43 269
8	Retail	0	0	0	0	0	0	0	0	66 319	0	0	0	(	0	C	0	66 319	66 319
9	Secured by mortgages on immovable property	0	0	0	0	0	79 322	2 963	0	93	6 499	17 461	0	(	0	C	0	106 338	106 338
10	Exposures in default	0	0	0	0	0	0	0	0	0	2 208	1 573	0	(	0	C	0	3 781	3 781
11	Exposures associated with particularly high risk	0	0	0	0	0	0	0	0	0	0	1 798	0	(	0	C	0	1 798	1 798
12	Covered bonds	0	0	0	0	0	0	0	0	0	0	0	0	(	0	C	0	0	0
13	Institutions and corporates with a short-term credit assessment	0	0	0	0	0	0	0	0	0	0	0	0	(	0	C	0	0	0
14	Collective investment undertakings	0	0	0	0	0	0	0	0	0	4	0	0	(	0	C	0	4	4
15	Equity	0	0	0	0	0	0	0	0	0	19	0	928	(	0	C	0	947	947
16	Other items	11 386	0	0	0	786	0	0	0	0	8 979	0	0	(	0	C	0	21 152	21 152
17	Total	123 799	0	0	0	14 311	79 322	7 718	0	66 412	66 697	20 833	3 597	(	) 0	C	0	382 690	259 371

Table 2.14 presents the exposure amount of the on-balance sheet and off-balance sheet items of the Bank's Group, similarly as in the table 2.13, of PLN 382 690 million, which represents the total exposure net of specific credit risk adjustments and impairment losses and after applying the relevant conversion factors for off-balance sheet exposures, i.e. after multiplying the exposure amounts of off-balance sheet items by the corresponding factors of 0%, 20%, 50% or 100%.

Table 2.14a Total exposure amount of the on-balance sheet and off-balance sheet items of the Bank's Group, including the division of off-balance sheet exposures according to conversion factors

						2020					
	•	Credit risk mitigation		exposure value		Off-b	alance sheet exp	posures by CCF	value		Exposure
provisions and imparment exposure (funded of which:					hich:					Off-balance sheet exposures after CCF	of which:
	losses	protection)		Balance sheet exposure	Off-balance sheet exposures	0%	20%	50%	100%	uner eer	value
	(a)	(b)	(c = a-b)	(d)	(e = f+g+h+i)	(f)	(g)	(h)	(i)	(J = f*0%+g*20%+h*50%+i*100%)	(k = d+j)
Total exposure	435 915	433 407	2 508	361 809	71 598	14 451	30 753	23 327	3 0 6 8	20 882	382 690

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As at 31 December 2020, the Bank did not use on- and off-balance sheet netting pursuant to Article 205 of the CRR, therefore, Article 453(a) of the CRR, regarding the disclosure of information about the policies and processes for on- and off-balance sheet netting and the extent to which a given entity makes use of such netting is not applicable.

As at 31 December 2020, the Bank used the effect of contractual netting agreements for the purposes of determining the balance sheet equivalent for derivative transactions, in accordance with Article 298 of the CRR. Such agreements are concluded primarily with institutional counterparties. They enable the settlement, also in the event of the insolvency of one of the parties, of all transactions covered by a given agreement with one amount being the total of the market values of individual transactions. The contractual netting agreements used meet the requirements of Articles 295-297 of the CRR.

### 2.5.13. Using external credit assessment institutions (ECAIs) and other information on counterparty credit risk exposures

In the process of calculating own funds requirements, the Bank uses the credit assessments assigned by the following external credit assessment institutions (rating agencies):

- 1) Moody's Investors Service;
- 2) Standard and Poor's Ratings Services;
- 3) Fitch Ratings.

The Bank's Group does not use the assessments of export credit agencies in the process of calculating own funds requirements.

In calculating the own funds requirements for credit risk, the Bank's Group uses the credit assessments assigned by credit assessment institutions (ECAIs). Credit assessments used to determine risk weights for exposures to counterparties in the following categories:

- 1) central governments or central banks;
- 2) institutions;
- enterprises;
- 4) regional self-governments or local authorities.

The rules for using external ratings and the method of applying an assessment of an issuer and the issues to individual exposures are in line with the CRR.

The process of applying an assessment of an issuer and the issues to the non-trading book items for the purposes of calculating own funds requirements is in line with the provisions of Part Three, Title II, Chapter 2 of the CRR.

On the wholesale market, PKO Bank Polski S.A. cooperates with financial institutions whose registered offices are located in 69 countries. The Bank may enter, within the set limits, into transactions with 427 counterparties, including domestic and foreign banks, insurance companies, pension funds and investment funds. Transactions include investment and deposit transactions, transactions in securities, foreign exchange transactions and derivative transactions.

The Bank has access to two clearing houses – CCP (in one clearing house – as an indirect participant, and in the other one – as a direct participant) through which it clears the interest rate derivative transactions specified in the  $EMIR^7$ , concluded with selected domestic and foreign counterparties. In addition, the Bank plays the role of a clearing broker in one of the clearing houses – it acts as an intermediary in the central clearing of the aforementioned derivative transactions concluded by the Bank's customers.

In order to mitigate the credit risk of derivative transactions and transactions in securities, the Bank enters into framework agreements with its counterparties (according to the Polish Bank Association, ISDA and ICMA standards). They enable the offsetting of the parties' mutual due obligations (a reduction in settlement risk) and undue obligations (a reduction in pre-settlement risk) arising from transactions, as well as the use of close-out netting at the time of termination of the framework agreement as a result of a breach or justification for the termination in relation to one or two parties to the agreement.

In addition, the Bank concludes collateral agreements (CSA – Credit Support Annex according to the ISDA standard or Collateral Agreements according to the standards of the Polish Bank Association) with its counterparties, under which each of the parties, after meeting the conditions set out in the agreement, undertakes to establish appropriate collateral along with the right to its netting, except for transactions in derivative instruments concluded by and between the Group entities: PKO Bank Polski S.A. and PKO Bank Hipoteczny S.A., which are exempted from the obligation to exchange collateral under Article 4(2) of the EMIR.

For lending transactions with financial institutions which have their registered offices outside the Republic of Poland, the international standards on loan agreements of the Loan Market Association are used.

Entering into a framework agreement with a counterparty forms the basis for verifying the internal limit per counterparty and the periods of the Bank's exposures to forward transactions or securities repurchase agreements.

The Bank monitors the financial standing of its counterparties on an ongoing basis and establishes exposure limits adequate to the risk incurred for pre-settlement and settlement exposures of individual counterparties. The Bank sets credit and settlement limits. A credit limit defines the Bank's maximum exposure to a specific counterparty or country in respect of wholesale market operations. A settlement limit defines the maximum acceptable amount of proceeds from a single counterparty or country within one day.

According to the methodology in place at the Bank, the amounts of limits for financial institutions are dependent on, among other things, a counterparty's rating and the level of own funds of the Bank and of the counterparty, and in the case of non-financial institutions also on a treasury survey which determines a customer's demand for hedging transactions and the expected gain or loss on a transaction.

<sup>&</sup>lt;sup>7</sup> EMIR (European Market Infrastructure Regulation) – Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories which entered into force on 16 August 2012.

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The Bank manages the risk of adjustment to the valuation of derivatives for counterparty credit risk as part of credit risk management. The assessment of counterparty credit risk forms a basis for the estimation of CVA and DVA adjustments.

The amount of internal capital for the credit risk of the insolvency of counterparties which are a financial institution, a country or a central bank is determined on the basis of the balance-sheet equivalent of on-balance sheet and off-balance sheet transactions. Depending on the rating, exposures are included in the individual credit quality steps and assigned the relevant risk weight calculated using internal methods. Monitoring and reporting internal capital levels for counterparty risk constitutes one of the elements of managing that risk.

As at 31 December 2020, the Bank had CSA collateral agreements with its counterparties, in which the amount of collateral is linked to the Bank's rating. If the Bank's rating should be lowered below the level defined in a given agreement, the amount of the collateral posted by the Bank on a daily basis may be modified according to the methodology described in the agreement or additional initial margin collateral may be required. As at the date of this Report, the outflow in respect of posting additional collateral if the Bank's rating should be lowered by 3 notches would amount to approx. PLN 1 825 million.

As at 31 December 2020, the positive gross fair value of derivative instruments concluded with financial institutions amounted to PLN 1 771 million. This amount was calculated by adding up the positive market values for all open transactions. The net credit exposure, after taking into account the netting of transactions for counterparties with framework agreements, was PLN 531 million (excluding centrally cleared transactions). The benefits of the netting amounted to PLN 1 240 million. The value of the collateral taken from the counterparties under the CSA agreements and the PBA collateral agreements was PLN 542 million.

As at 31 December 2020, the Bank had no credit derivatives.

As at 31 December 2020, the Bank took into account adjustments for credit valuation in the valuation of derivative financial instruments. In the adjustment, the Bank took into account the market value of credit risk from the Bank's perspective. The analysis covered all exposures. In particular, the adjustment took into account the risk of non-performance of the agreements concluded with a counterparty based on, among other things, an analysis of the economic and financial standing of the entities, the probability of repayment of the individual contracts, and the recoverable amount of collateral.

The financial institutions with which the Bank enters into transactions on the interbank market have various external ratings between AAA and BB (Table 2.15).

Table 2.15. Quality of exposures\* to financial institutions\*\*

	PKO Bank Polski SA
Rating	2020
AAA	33,70%
AA	4,83%
A	55,93%
ВВВ	4,67%
ВВВ	0,09%
В	0,00%
ccc	0,00%
No rating	0,78%
Total	100,00%

<sup>\*</sup>Exposure is the total nominal exposures in respect of deposits and securities and the total valuations of derivative instruments (excluding CCP) after their netting for the counterparties with which there are effective framework netting agreements. The exposures in respect of derivative instruments presented in this table do not include the collateral posted by the counterparties, which reduce this exposure.

The above list is based on external ratings assigned by Moody's, Standard and Poor's Ratings Services and Fitch, mapped to a uniform rating scale.

The value of exposures to counterparty risk is calculated using the mark-to-market method according to Part Three, Title II, Chapter 6, Section 3 of the CRR. In order to determine the current replacement cost of all contracts with positive values, the Bank attaches the current market values to the contracts.

As at the end of 2020, the Bank's Group did not have any credit derivatives used to reduce capital requirements.

<sup>\*\*</sup>Exposures to institutions from outside the Bank's Group.

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Table 2.16. Analysis of exposures subject to the CCR framework (excluding capital requirements or exposures cleared by the central counterparty) [Template EU CCR1]

		2020						
		a)	b)	c)	d)	e)	f)	g)
		Notional	Replacement cost/current market value	Potential future credit exposure	EEPE	Multiplier	EAD post CRM	RWAs
1	Mark to market		1 295	2 665			3 389	2 428
2	Original exposure	0					0	0
3	Standardised approach		0				0	0
4	IMM (for derivatives and SFTs)				0	0	0	0
5	Of which securities financing transactions				0	0	0	0
6	Of which derivatives and long settlement transactions				0	0	0	0
7	Of which from contractual cross-product netting				0	0	0	0
8	Financial collateral simple method (for SFTs)						0	0
9	Financial collateral comprehensive method (for SFTs)						15	15
10	VaR for SFTs						0	0
11	Total							2 444

Table 2.17. Exposures to CCPs [Template EU CCR8]

		2020		
		a)	b)	
		EAD post CRM	RWAs	
1	Exposures to QCCPs (total)		112 625	
2	Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which	2 335 595	41 893	
3	(i) OTC derivatives	2 274 310	41 893	
4	(ii) Exchange-traded derivatives	61 285	0	
5	(iii) SFTs	0	0	
6	(iv) Netting sets where cross-product netting has been approved	0	0	
7	Segregated initial margin	112 722		
8	Non-segregated initial margin	0	0	
9	Prefunded default fund contributions	39 008	0	
10	Alternative calculation of own funds requirements for exposures		70 732	
11	Exposures to non-QCCPs (total)		0	
12	Exposures for trades at non-QCCPs (excluding initial margin and default fund contributions); of which	0	0	
13	(i) OTC derivatives	0	0	
14	(ii) Exchange-traded derivatives	0	0	
15	(iii) SFTs	0	0	
16	(iv) Netting sets where cross-product netting has been approved	0	0	
17	Segregated initial margin	0		
18	Non-segregated initial margin	0	0	
19	Prefunded default fund contributions	0	0	
20	Unfunded default fund contributions	0	0	

Table 2.18. Credit valuation adjustment (CVA) capital charge [Template EU CCR2]

		2020	
		a)	b)
		Exposure value	RWAs
1	Total portfolios subject to the advanced method	0	0
2	(i) VaR component (including the 3× multiplier)		0
3	(ii) SVaR component (including the 3× multiplier)		0
4	All portfolios subject to the standardised method	1 576	350
EU4	Based on the original exposure method	0	0
5	Total subject to the CVA capital charge	0	0

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## Table 2.19. Standardised approach - Impact of netting and collateral held on exposure values [Template EU CCR5-A]

		2020									
		a)	b)	c)	d)	e)					
		Gross positive fair value or net carrying amount	Netting benefits	Netted current credit exposure	Collateral held	Net credit exposure					
1	Derivatives	6 460	3 242	3 217	408	2 810					
2	SFTs	50	0	50	43	7					
3	Cross-product netting	0	0	0	0	0					
4	Total	6 509	3 242	3 267	451	2 816					

Table 2.20. Composition of collateral for exposures to counterparty credit risk [Template EU CCR5-B]

	2020									
	a)	e)	f)							
C	Collateral used in de	rivative transactions	Collateral used in SFTs							
	Fair value of collater Segregated	al received Unsegregated		Fair value of posted collateral						
	463	0	755	0	0	50				

Table 2.21 Credit derivatives exposures [Template EU CCR6]

As at 31 December 2020, the Bank did not have any credit derivatives, i.e. instruments which would require disclosing in a table in accordance with the template EU CCR6.

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Table 2.22. Standardised approach - counterparty credit risk exposures by exposure category and risk weight [Template EU CCR3]

2020														
	Exposure classes						Risk weigh	t					Total	Of which
	Exposure clusses	0%	2%	4%	10%	20%	50%	70%	75%	100%	150%	Other issues	Total	unrated
1	Central governments or central banks	9	0	0	0	0	0	0	0	0	0	0	9	0
2	Regional government or local authorities	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Public sector entities	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Multirateral development banks	0	0	0	0	0	0	0	0	0	0	0	0	0
5	International organisations	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Institutions	0	0	0	0	670	819	0	0	1	0	0	1 490	0
7	Corporates	0	0	0	0	0	4	0	0	1 884	0	0	1 888	1 292
8	Retail	0	0	0	0	0	0	0	17	0	0	0	17	17
9	Institutions and corporates with a short - term credit assessment	0	0	0	0	0	0	0	0	0	0	0	0	0
10	Other items	0	0	0	0	0	0	0	0	0	0	0	0	0
11	Total	9	0	0	0	670	823	0	17	1 885	0	0	3 405	1 309

## 2.5.14. Non-performing and forborne exposures

The tables below present detailed quantitative information on non-performing and forborne exposures<sup>8</sup> in accordance with the requirements set out in the EBA/GL/2018/10 Guidelines. Three tables are presented:

- 1) Table 2.23. Credit quality of forborne exposures [Template 1];
- 2) Table 2.24. Credit quality of performing and non-performing exposures by past due days [Template 3];
- 3) Table 2.25. Performing and non-performing exposures and related provisions [Template 4];
- 4) Table 2.26. Collateral obtained through foreclosure and enforcement proceedings [Template 9].

The Banks's Group gross NPL ratio<sup>9</sup> amounted to 4.43% as at 31.12.2020.

<sup>&</sup>lt;sup>8</sup> The definitions of non-performing and forborne exposures are specified in Commission Implementing Regulation (EU) No 680/2014 of 16 April 2014 laying down implementing technical standards with regard to supervisory reporting of institutions according to Regulation (EU) of the European Parliament and of the Council No 575/2013.

<sup>&</sup>lt;sup>9</sup> The definition of the NPL is specified in the EBA/GL/2018/10 Guidelines.

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Table 2.23. Credit quality of forborne exposures [Template W01]

						31.12.2020				
		a	b	c	d	e	f	g	h	
		Gross carrying amo	unt of forborne expo	sures / Nominal amo	unt	Accumulated impairmer negative changes in fai risk and provisions	r value due to credit	Collaterals received and financial guarantees received on forborne exposures		
		•	Non-performing fort	oorne			On non-performing		Of which: Collateral and	
		forborne		Of which defaulted		forborne exposures	forborne exposures		financial guarantees received on non-performing exposures with forbearance measures	
1	Loans and advances	968	2 298	786	2 219	-65	-1 013	1 978	1 171	
2	Central banks	0	0	0	0	0	0	0	0	
3	General governments	0	2	0	2	0	-1	0	0	
4	Credit institutions	0	0	0	0	0	0	0	0	
5	Other financial corporations	0	0	0	0	0	0	0	0	
6	Non-financial corporations	440	1 326	544	1 325	-25	-499	1 140	863	
7	Households	528	969	242	892	-40	-513	837	309	
8	Debt Securities	0	617	179	457	0	-14	0	0	
9	Loan commitments given	52	42	9	42	1	7	0	0	
10	Total	1 021	2 957	974	2 718	-64	-1 020	1 978	1 171	

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Table 2.24. Credit quality of performing and non-performing exposures by past due days [Template W03]

							31.12	2.2020					
		a	b	c	d	e	f	9	h	i	j	k	I
							Gross carrying amou	unt / Nominal amount					
			Performing exposures					N	on-performing exposu	res			
			Not past due or Past due <= 30 days	Past due > 30 days <= 90 days		Unlikely to pay that are not past-due or past-due <= 90 days	Past due > 90 days	Przeterminowane > 180 dni ≤ 1 rokPast due > 180 days <= 1 year		Past due > 2 year <= 5 years	Past due > 5 year <= 7 years	Past due > 7 years	Of which defaulted
1	Loans and advances	223 129	222 342	787	10 274	4 267	407	527	1 001	2 017	1 136	918	8 283
2	Central banks	159	159	0	0	0	0	0	0	(	0	(	0
3	General governments	6 227	6 227	0	59	59	0	0	0	(	0	(	57
4	Credit institutions	1 639	1 639	0	0	0	0	0	0	(	0	(	0
5	Other financial corporations	2 778	2 772	6	27	20	1	0	4	2	2 0	(	18
6	Non-financial corporations	60 132	59 702	430	5 389	2 608	148	186	314	961	622	550	4 319
7	Of which SMEs	32 588	32 272	316	3 831	1 569	138	163	297	696	484	484	2 503
8	Households	152 194	151 843	351	4 798	1 581	258	341	684	1 054	514	368	3 889
9	Debt Securities	119 208	119 208	0	617	617	0	0	0	(	0	(	617
10	Central banks	0	0	0	0	0	0	0	0	(	0	(	0
11	General governments	95 273	95 273	0	0	0	0	0	0	(	0	(	0
12	Credit institutions	3 579	3 579	0	0	0	0	0	0	(	0	(	0
13	Other financial corporations	17 680	17 680	0	0	0	0	0	0	(	0	(	0
14	Non-financial corporations	2 676	2 676	0	617	617	0	0	0	(	0	(	617
15	Off-balance sheet exposures	71 504			467								51
16	Central banks	0			0								0
17	General governments	4 851			19								19
18	Credit institutions	6 056			0								0
19	Other financial corporations	639			0								0
20	Non-financial corporations	43 866			427								22
21	Households	16 092			22								10
22	Total	413 841	341 550	787	11 358	4 884	407	527	1 001	2 017	1 136	918	8 951

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Table 2.25. Performing and non-performing exposures and related provisions [Template W04]

								31.12.2020							
	a	b	c	d	e	f	g	h	i	j	k	1	m	n	0
		G	ross carrying amou	nt/nominal amou	nt		Accumulated in	pairment, accumu	lated negative cha	inges in fair value	due to credit ris	k and provisions		OCollaterals and financial guarantees received	
	Pı	erforming exposur	res		Non-performi			posures - Accumulated impairment and provisions		Non-performing exposures - Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		ve changes in fair	Accumulated partial write-off	On performing exposures	On non-performing exposures
		of which: stage 1	of which: stage 2		of which: stage 2	of which: stage 3	3 of which: stage 1 of which: stage 2 of which: stage 2		of which: stage 3	e 3					
1 Loans and advances	223 129	184 109	33 214	10 274	34	10 036	-2 653	-603	-2 050	-6 181	-11	-6 170	-1 793	161 614	3 076
2 Central banks	159	159	0	0	0	0	0	0	0	0	(	0 0	0	0	0
3 General governments	6 227	6 045	114	59	0	59	-24	-22	-2	-2	(	0 -2	0	869	57
4 Credit institutions	1 639	1 639	0	0	0	0	0	0	0	0	(	0 0	0	0	0
5 Other financial corporations	2 778	2 750	28	27	0	27	-16	-15	-1	-16	(	-16	0	1 710	11
6 Non-financial corporations	60 132	45 940	14 161	5 389	2	5 386	-1 057	-245	-812	-2 841	(	-2 841	-778	39 514	2 223
7 Of which SMEs	32 588	23 178	9 379	3 831	2	3 828	-729	-124	-605	-2 145	(	-2 144	-657	23 091	1 625
8 Households	152 194	127 576	18 912	4 798	32	4 563	-1 556	-321	-1 236	-3 322	-10	3 311	-1 015	119 521	784
9 Debt Securities	119 208	118 406	295	617	0	457	-49	-32	-17	-14	(	0 -14	-3	0	0
10 Central banks	0	0	0	0	0	0	0	0	0	0	(	0 0	0	0	0
11 General governments	95 273	94 696	91	0	0	0	-28	-28	0	0	(	0 0	0	0	0
12 Credit institutions	3 579	3 579	0	0	0	0	-2	-2	0	0	(	0 0	0	0	0
13 Other financial corporations	17 680	17 680	0	0	0	0	0	0	0	0	(	0 0	0	0	0
14 Non-financial corporations	2 676	2 451	204	617	0	457	-19	-2	-16	-14	(	0 -14	-3	0	0
15 Off-balance sheet exposures	71 504	62 982	8 522	467	0	467	437	117	320	192	(	192		0	0
16 Central banks	0	0	0	0	0	0	0	0	0	0	(	0 0		0	0
17 General governments	4 851	4 829	23	19	0	19	7	5	1	0	(	0		0	0
18 Credit institutions	6 056	6 056	0	0	0	0	0	0	0	0	(	0		0	0
19 Other financial corporations	639	639	0	0	0	0	1	1	0	0	(	0 0		0	0
20 Non-financial corporations	43 866	37 187	6 679	427	0	427	350	88	262	181	(	181		0	0
21 Households	16 092	14 272	1 820	22	0	22	80	23	57	11	(	0 11		0	0
22 Total	413 841	365 497	42 032	11 358	34	10 960	-2 265	-517	-1 747	-6 002	-11	1 -5 991		161 614	3 076

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Table 2.26. Collateral obtained by taking possession and execution processes [Template W09]

		31.12	.2020				
		a	b				
		Collateral obtained by taking possession accumulated					
		Value at initial recognition	Accumulated negative changes				
1	Property Plant and Equipment (PP&E)	0	0				
2	Other than Property Plant and Equipment	31 063	-3 357				
3	Residential immovable property	1 158	0				
4	Commercial Immovable property	29 906	-3 357				
5	Movable property (auto, shipping, etc.)	0	0				
6	Equity and debt instruments	0	0				
7	Other	0	0				
8	Total	31 063	-3 357				

# 2.5.15. Information on exposures subject to measures applied in response to the COVID-19 pandemic

The tables below present information on exposures subject to the EBA/GL/2020/07 Guidelines of 2 June 2020 on legislative and non-legislative moratoria on loan repayments applied in the light of the COVID-19 crisis and on newly originated exposures subject to public guarantee schemes, in accordance with the templates set out in Annex 3 to these Guidelines.

For better data transparency, Table 2.27 Loans and advances subject to moratoria consistent with the EBA guidelines (legislative and non-legislative) [template 1 COVID19] is divided into two tables: Table 2.27a (table columns a) to g)) and Table 2.27b (table columns h) to o)).

Table 2.27a. Information on loans and advances subject to legislative and non-legislative moratoria (table columns a) - g)) [Template 1 COVID19]

	· · ·	-								
					31.12.2020					
		a	b	С	d	e	f	9		
					Gross carrying amount					
			Performing Non performing							
				Of which: exposures with forbearance measures	Of which: Instruments with significant increase in credit risk since initial recognition but not credit-impaired (Stage 2)		Of which: exposures with forbearance measures	Of which: Unlikely to pay that are not past- due or past-due <= 90 days		
1	Loans and advances subject to moratorium	3 022	2 758	26	1 504	264	2	248		
2	of which: Households	1 979	1 918	26	1 217	62	2	50		
3	of which: Collateralised by residential immovable property	1 534	1 504	23	1 048	30	2	28		
4	of which: Non-financial corporations	1 043	840	0	286	203	0	198		

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Table 2.27b. Information on loans and advances subject to legislative and non-legislative moratoria (table columns h) - o)) [Template 1 COVID19]

				31.12.20	020			
	h	i	j	k	1	m	n	0
		Accumulated impairment, accumulated negative changes in fair value due to credit risk						
		Performing Non performing						
			Of which: exposures with forbearance measures	Of which: Instruments with significant increase in credit risk since initial recognition but not credit- impaired (Stage 2)		Of which: exposures with forbearance measures	Of which: Unlikely to pay that are not past due or past-due <= 90 days	
1 Loans and advances subject to moratorium	-144	-75	-3	-68	-69	-1	-59	0
2 of which: Households	-87	-65	-3	-59	-22	-1	-16	0
3 of which: Collateralised by residential immovable property	-45	-36	-2	-35	-8	-1	-8	0
4 of which: Non-financial corporations	-58	-10	0	-9	-47	0	-44	1

Table 2.28. Breakdown of loans and advances subject to legislative and non-legislative moratoria by residual maturity of moratoria [Template 2 COVID19]

			31.12.2020								
		a	b	С	d	e	f	g	h	i	
						Gross carry	ing amount				
		Number of obligors		Of which: legislative	Of which: expired	Residual maturity of moratoria					
		g		moratoria		<= 3 months	> 3 months <= 6 months	> 6 months <= 9 months	> 9 months <= 12 months	> 1 year	
1	Loans and advances for which moratorium was offered	209 024	33 360								
2	Loans and advances subject to moratorium (granted)	206 220	32 745	38	29 723	2 897	62	4	14	45	
3	of which: Households		19 648	38	17 669	1 969	3	0	7	0	
4	of which: Collateralised by residential immovable property		15 339	26	13 805	1 534	0	0	0	0	
5	w of which: Non-financial corporations		13 097	0	12 054	928	59	4	8	45	

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Table 2.29. Information on newly originated loans and advances provided under newly applicable public guarantee schemes introduced in response to COVID-19 crisis [Template 3 COVID19]

			31.12	2.2020	
		0	b	С	d
		Gross carrų	ying amount	Maximum amount of the guarantee that can be considered	Gross carrying amount
			of which: forborne	Public guarantees received	Inflows to non-performing exposures
1	Newly originated loans and advances subject to public guarantee schemes	3 699	22	133	0
2	of which: Households	0			0
3	w tof which: Collateralised by residential immovable property	0			0
4	of which: Non-financial corporations	3 699	22	133	0
5	of which: Small and Medium-sized Enterprises				0

More detailed information on the impact of the COVID-19 pandemic on the Bank's Group activities is provided in the Consolidated Financial Statements of the PKO Bank Polski S.A. Group as at and for the year ended 31 December 2020 (5. Impact of the COVID-19 pandemic on the Group's operations).

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#### 2.5.16. Exposure to securitization positions

In September 2019, PKO Leasing S.A. carried out the largest asset securitization transaction on the domestic market. The transaction consisted of selling a portfolio of high quality lease receivables totalling PLN 2.5 billion.

On 26 September 2019, PKO Leasing S.A. sold a portfolio of securitized lease receivables to a special purpose vehicle Polish Lease Prime 1 Designated Activity Company (Polish Lease Prime 1 DAC), with its registered office in Dublin (Ireland). According to IFRS 10, Polish Lease Prime 1 DAC meets the definition of a subsidiary of PKO Leasing S.A. and is subject to consolidation.

The receivables purchased by the special purpose vehicle were financed mainly with an issue of securities (bonds) conducted on 26 September 2019 with the redemption date falling on 28 December 2029 and with funds obtained within the PKO Leasing S.A. Group. Bonds with a nominal value of PLN 1 835 million were taken up by entities from outside the Bank's Group. The objective of and benefit from selling these receivables to the SPV was to obtain and diversify sources of long-term financing.

At the beginning of July 2020, due to the closure of securitization of PKO Leasing S.A.'s lease receivables conducted in cooperation with a special purpose vehicle ROOF Poland Leasing 2014 DAC, operating activities relating to the liquidation of the special purpose vehicle were commenced.

Detailed information on the securitization is presented in the Consolidated Financial Statements of the Bank's Group as at and for the year ended 31 December 2020 (Note 72 Information on securitization of the lease portfolio and package sale of receivables).

#### 2.5.17. Exposures in non-trading book equity securities

PKO Bank Polski S.A. and its subsidiaries subject to prudential consolidation have equity exposures<sup>10</sup> in other entities which are classified in the banking book.

The exposures in the banking book as at 31 December 2020, due to the type of the investment and the purpose of the acquisition, are broken down into the following groups:

- 1) investments in subsidiaries not subject to prudential consolidation this group includes companies which complement the Bank's basic offer with insurance services, as well as closed-end investment funds set up to support entities (including start-ups) offering technological innovations mainly for the financial sector and to optimize management and sales activities related to supervised asset portfolios;
- 2) investments in associates and joint ventures investments in companies which provide financial and technological services; this group includes, among other things, Centrum Elektronicznych Usług Płatniczych eService sp. z o.o., together with which PKO Bank Polski S.A. offers comprehensive services consisting of setting up POS terminals and accounting for transactions carried out with payment instruments, using these terminals;
- 3) minority interests in entities' capital, including:
  - a) the Bank's investments in companies which provide financial services or which contribute to the development of financial markets, including those which create the infrastructure of financial markets;
  - b) participation units in investment funds the investments of PKO Towarzystwo Funduszy Inwestycyjnych S.A. (PKO TFI S.A.) in the participation units of the new investment funds it manages; the assets are acquired to provide the funds required to establish a fund;
  - c) other equity exposures the Bank's investments and the investments of the subsidiaries subject to prudential consolidation, mostly held for sale; this group includes, among other things, shares acquired as part of forbearance of loan receivables, including repossessed collateral.

Table 2.30. Banking book equity exposures (in PLN million)

	20	20	20	19
	Carrying amount	Fair value*	Carrying amount	Fair value*
Investments valued under the equity method (equity investments in subsidiaries not subject to prudential consolidation, jointventures and associated entities)	1 394	1 412	1 369	1 396
Shares in other entities, this includes also equity investments in entities revealed as fixed assets items for sale	88	88	87	87
Equity securities	372	372	370	370
Shares in entities listed on regulated market	17	17	24	24
Shares in entities not listed on regulated market**	355	355	346	346
Participation units in PKO TFI SA investment funds	4	4	3	3
Total	1 859	1 876	1 830	1 857

<sup>\*</sup>Estimated fair value, including for shares admitted to trading on a regulated market - market value.

The equity exposures presented in the above table are subject to periodic valuation.

Investments in subsidiaries not subject to prudential consolidation, joint ventures and associates are measured using the equity method. The share of the Bank's Group in the financial results of the aforementioned entities as from the date of acquisition is recognized in profit or loss, whereas its share in changes in other comprehensive income as from the date of acquisition – in other comprehensive income. The carrying amount of the investments is adjusted for total changes in individual equity items as from the date of acquisition.

<sup>\*\*</sup>This item also includes shares not admitted to trading on the regulated market of public companies.

<sup>&</sup>lt;sup>10</sup> This information concerns equity exposures in the form of shares, participation units and investment certificates. The Bank classifies the following in the banking book under prudential consolidation: subsidiaries not subject to prudential consolidation, associates, joint ventures and the aforementioned securities and equity securities which constitute financial assets not held for trading.

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Each time, as at the end of a reporting period, it is assessed whether there are any indications that the investments in subsidiaries not subject to prudential consolidation, joint ventures and associates may be impaired. If such indications exist, the recoverable amount, i.e. the higher of the value in use of an investment or its fair value less costs to sell the asset, is estimated (an impairment test). If the carrying amount of an asset exceeds its recoverable amount, an impairment loss is recognized in profit or loss. Value in use is determined on the basis of the estimated value of expected future cash flows from the continuing holding of shares, based on the entities' financial plans, using the discount rate determined for the Bank's equity exposures. The current bid price or the value estimated on the basis of valuation techniques commonly used by market participants is adopted as the fair value.

Shares in other companies are measured at fair value determined according to market value for companies for which there is an active market or based on internal valuation models for companies for which there is no active market. The effects of changes in the fair value of shares are recognized in profit or loss.

Participation units in investment funds are measured at fair value, with the effect being recognized in profit or loss.

The fair value of equity exposures, determined on the basis of internal valuation models, is described in the financial statements of the Bank and the Bank's Group for 2020, in the notes on the fair value hierarchy.

In 2020, the Bank's Group (according to prudential consolidation) realized an accumulated gross loss on the sale of securities constituting equity exposures in the banking book of PLN 1.4 million. The unrealized gross gains of the Bank's Group on the revaluation of the equity exposures in the banking book totalled PLN 640.2 million as at the end of 2020. The aforementioned amount includes the unrealized gain of the Bank's Group of PLN 178.5 million on the remeasurement of the cost of purchase of shares in one of the companies to fair value.

In 2020, PKO Bank Polski S.A. received a gross dividend totalling PLN 31.9 million in respect of shares constituting equity exposures in the banking book.

#### 2.6. Interest rate risk

#### 2.6.1. Introduction

Interest rate risk is the risk of losses being incurred on the on-balance sheet and off-balance sheet items of the Bank's Group, sensitive to interest rate fluctuations, as a result of changes in market interest rates.

The Bank categorizes its portfolios from the perspective of interest rate risk management:

- the banking book comprises on-balance sheet and off-balance sheet items not included in the trading book, in particular items resulting from the Bank's core activities, transactions concluded for investment and liquidity purposes and their hedging transactions;
- the trading book comprises transactions concluded in financial instruments as part of activities conducted on own account and on behalf of the customers.

The Bank pro-actively manages the interest rate risk arising from items in both the trading and non-trading portfolios.

The purpose of interest rate risk management is to reduce the potential losses resulting from fluctuations in market interest rates to an acceptable level by properly shaping the structure of on-balance sheet and off-balance sheet items.

## 2.6.2. Identification, measurement and assessment of interest rate risk

The identification of interest rate risk consists of identifying its current and potential sources and estimating the materiality of its potential impact on the activities of the Bank and the Bank's Group.

The process and the organization of interest rate risk management in the Bank's Group are in compliance with the principles described in section 2.1.

The interest rate risk management process is supervised by the Supervisory Board which regularly receives information on the risk profile of the Bank and the Bank's Group as well as information on the key measures taken in the area of interest rate risk management. The Supervisory Board also approves reports confirming the compatibility of the interest rate risk profile with the tolerance for interest rate risk defined at the level of the Bank and the Bank's Group. The Management Board is responsible for managing the Bank's interest rate risk, including supervising and monitoring the measures taken by the Bank to manage interest rate risk. The Management Board adopts internal regulations on interest rate risk management.

The Risk Management Strategy of PKO Bank Polski S.A. and the PKO Bank Polski S.A. Group defines an acceptable level of interest rate risk both in the Bank and the Bank's Group and lays down the principles for interest rate risk management in the Bank's Group. Additionally, the Strategy for managing interest rate risk in the banking book of PKO Bank Polski S.A. defines the approach to managing interest rate risk in this portfolio.

The assignment of transactions to business models according to IFRS 9 and the division into the trading book and the banking book are determined by the Bank's Investment Policy relating to financial instruments.

The Bank supervises the functioning of interest rate risk management in the individual subsidiaries in the Bank's Group. As part of the supervision, the Bank influences the interest rate risk management methods in these entities and supports their development. The Bank also takes into account the level of interest rate risk in the operations of the individual entities as part of the interest rate risk monitoring and reporting system at the Bank's Group level.

The interest rate risk generated by the Bank's core activities is transferred using a transfer pricing system in order to manage this risk in a centralized manner. The Bank's business model assumes managing interest rate risk in an active manner by shaping its product mix appropriately and using the available financial instruments within the limits and thresholds for interest rate risk adopted at the Bank.

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In order to determine the level of interest rate risk, the Bank uses an interest income sensitivity measure, economic value sensitivity measure, value-at-risk model (VaR), shock analysis and repricing gaps.

The sensitivity of interest income to an abrupt shift of the yield curve defines the potential financial effect of that shift, expressed as a change in the amount of interest income in a given time horizon. This change is the result of the mismatch of the repricing dates of assets, liabilities and off-balance sheet liabilities granted and received (in particular derivative instruments) which are sensitive to changes in interest rates.

The economic value sensitivity (Basis Point Value – BPV) reflects a fair value change of portfolio items caused by a parallel upward shift of the yield curves by one basis point.

The IR VaR measure is the potential loss which may occur in normal market conditions over a specific period of time (i.e. a horizon) and with an assumed probability level due to changes in interest rate curves. For market risk management purposes, VaR is calculated with a 99% confidence level and 10-day position holding. Interest rate risk is managed using, among other things, VaR determined for individual financial instruments and for the Bank's portfolios, and by type of business activities of the Bank.

Shock analysis (stress tests, crash tests) is used to estimate potential losses resulting from the maintained structure of the balance sheet and off-balance sheet items, where a market situation occurs which is not described in a standard manner, using statistical measures. Additionally, the Bank uses shock analysis in the form of reverse stress tests of interest rate risk.

The following types of shock analysis scenarios are used at the Bank:

- a) hypothetical stress tests in which interest rate fluctuations are assumed arbitrarily: a parallel shift of the interest rate curves for the individual currencies by ±50 bps, ±100 bps, ±200 bps, values over 200 bps and nonparallel deflection of yield curves scenarios;
- b) historical stress tests in which interest rate fluctuations are assumed on the basis of movements in interest rates observed in the past, including: the biggest historical change, deflection of the yield curve, taking into account portfolio positions, the biggest historical nonparallel shift of interest rate curves for securities and for derivatives hedging those securities;
- c) crash tests in which interest rate fluctuations are assumed on the basis of movements in interest rates observed in the past in such a manner as to maximize the Bank's potential loss;
- d) reverse stress tests which are aimed at finding such scenarios relating to:
  - the shift of yield curves;
  - a change in the average repricing date of individuals' current accounts, and
  - an increase in the frequency of termination of deposits bearing fixed interest rates subject to a strategy for hedging against interest rate fluctuations,
- e) Supervisory Stress Testing in accordance with the EBA Guidelines on IRRBB,

whose results would correspond to a given change in the Bank's on-balance sheet and off-balance sheet items.

The repricing gap is the difference between the current value of assets and liabilities exposed to interest rate risk, repriced in a given time bracket, with the said items being recognized as at the transaction date.

In the process of interest rate risk measurement, in relation to loan and deposit balances with indefinite repricing dates, the Bank uses an approach based on replicated interest rate risk profiles, taking into account the instability of the balances of these products (determined on the basis of movements in them in the past). Moreover, the Bank regularly monitors the impact of the early repayment of loans on interest rate risk measures and, according to the latest analyses, it considers such impact to be immaterial.

#### 2.6.3. Control of interest rate risk

The control of interest rate risk covers determining limits and thresholds concerning interest rate risk, in particular strategic limits of tolerance for interest rate risk, tailored to the scale and complexity of the activities of the Bank's Group.

## 2.6.4. Monitoring interest rate risk

The Bank's interest rate risk is monitored on a daily basis, whereas that of the Bank's Group is monitored on a monthly basis. In 2020, the interest rate risk of the Bank's Group was determined mainly by the mismatch of the repricing dates of assets and liabilities.

## 2.6.4. 1.Banking book

In order to monitor interest rate risk, the Bank uses interest rate risk measures reflecting the four main types of interest rate risk identified:

- a) repricing risk;
- b) yield curve risk;
- c) base risk, and
- d) customer option risk.

The sensitivity of interest income in the Bank's Group banking book to an abrupt shift of the yield curve by 100 bps within a year in all currencies is presented in Table 2.31. below:

Table 2.31. The sensitivity of interest income in the Group's banking book

Measure	name	31.12.2020	31.12.2019
Sensitivit	y of interest income (in PLN million)	-527	-907

The economic value sensitivity reflects a fair value change of portfolio items caused by a parallel shift of the yield curves by 100 bps up or down (the more unfavourable of the scenarios mentioned).

The table below presents the economic value sensitivity measure (stress-test) of the Bank's Group banking book in all currencies as at 31 December 2020 and as at 31 December 2019:

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Table 2.32. The economic value sensitivity measure of the Group's banking book

Measure name	31.12.2020	31.12.2019
Sensitivity of economic value (in PLN million)	-443	-266

The objective of stress tests is to estimate potential losses on interest-bearing items in the event of a market situation which is not described in a standard manner, using statistical measures.

A stress test analysis of the Banks' Group exposure to interest rate risk is presented in Table 2.33. below:

Table 2.33. A stress test analysis of the Group's exposure to interest rate risk

Measure name <sup>1</sup>	31.12.2020	31.12.2019
Parallel shift of the interest rate curves by +200 bps	-776	207
Parallel shift of the interest rate curves by -200 bps	644	-426
Parallel shift of the interest rate curves by a given increase for each currency	-976	275
Parallel shift of the interest rate curves by a given decrease for each currency	644	-290
Increase in long-term rates	717	26
Decrease in long-term rates	-1 089	-114
Sudden shock of interest rates	-1 389	108
Moderate interest rate shock	824	-106

<sup>&</sup>lt;sup>1</sup> The results of the stress test analysis are presented exclusively for the Bank's banking book, for currencies representing at least 5% of the total financial assets in the banking book. The stress tests are presented in accordance with the EBA Guidelines on IRRBB.

## 2.6.4. 2.Trading book

In order to monitor interest rate risk in the trading book, the Bank uses the value-at-risk (VaR) measure.

The IR VaR in the Bank's trading book is presented in Table 2.34. below:

Table 2.34. VaR measure in the Bank's trading book

Measure name	31.12.2020	31.12.2019
IR VaR (in PLN million) 1		
Average value	11	5
Maximum value	20	10
Value at the end of the year	13	6

<sup>&</sup>lt;sup>1</sup> Due to the nature of the activities of the Group companies, the value-at-risk measure is presented for the Bank's trading book.

## 2.6.5. Reporting interest rate risk

The Bank prepares daily, weekly, monthly and quarterly interest rate risk reports, with the monthly and quarterly reports concerning also the Bank's Group. The reports contain information on the interest rate risk exposure and information on the utilization of the risk limits. The Bank's exposure to interest rate risk is measured on a daily basis. The users of such reports are mainly the ALCO, RC, the Management Board, Risk Committee of the Supervisory Board, and the Supervisory Board.

## 2.6.6. Management activities related to interest rate risk

The main interest rate risk management tools used in the Bank's Group include:

- 1) interest rate risk management procedures;
- 2) limits and thresholds for interest rate risk;
- 3) defining the characteristics and the level of exposure of individual products to interest rate risk;
- 4) defining the acceptable types of transactions based on interest rates.

The Bank's Group has established limits and thresholds for interest rate risk, among other things, for interest income sensitivity, economic value sensitivity as well as limits and thresholds for losses, and limits for instruments sensitive to interest rate fluctuations.

The methods of interest rate risk management in the entities in the Bank's Group are defined in the internal regulations implemented by those entities for which interest rate risk is material. Such regulations are developed after consulting the Bank and taking into account the Bank's recommendations.

The acceptable level of risk at the level of both the Bank and the Bank's Group is determined as part of the Risk Management Strategy of PKO Bank Polski S.A. and the PKO Bank Polski S.A. Group.

At least once a year, the Bank reviews the risk management process in order to verify the consistency of the interest rate risk management process with the process of managing other risks, the regulatory requirements and the degree of alignment with the scale and complexity of the interest rate risk to which the Bank is exposed, which ensures the continued effectiveness of hedging instruments and risk mitigation measures. Additionally, the effectiveness of the risk management process is constantly monitored as part of the reports specified in chapter 2.6.5 of this Report.

## 2.7. Foreign exchange risk

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#### 2.7.1. Introduction

Foreign exchange risk is the risk of incurring losses due to exchange rate fluctuations, generated by maintaining open currency positions.

The objective of foreign exchange risk management is to reduce the potential losses resulting from exchange rate fluctuations to an acceptable level by properly shaping the currency structure of on-balance sheet and off-balance sheet items. The acceptable level of risk for both the Bank and the Bank's Group is determined as part of the Risk Management Strategy of PKO Bank Polski S.A. and the PKO Bank Polski S.A. Group, implemented by the Management Board and approved by the Supervisory Board.

The overall structure of the management of risk, including foreign exchange risk, is contained in chapter 2.1 of this Report. According to the Foreign Exchange Risk Management Principles in place at the Bank, implemented by the Management Board, the currency position generated by banking operations (e.g. the repayment of a foreign currency loan in PLN by a customer, loan currency conversion) is transferred to the Treasury Department on a daily basis. This means that the Bank's currency position as at the end of a day may consist only of an open position in banking operations generated on that day and a limited currency position derived from trading activities, as a result of which the Bank's exposure to foreign exchange risk is low.

## 2.7.2. Identification, measurement and assessment of foreign exchange risk

The identification of foreign exchange risk consists of identifying its current and potential sources and estimating the materiality of its potential impact on the activities of the Bank and the Bank's Group.

The process and the organization of foreign exchange risk management in the Bank's Group are in compliance with the principles described in chapter 2.1 of this Report.

The foreign exchange risk management process is supervised by the Supervisory Board which regularly receives information on the risk profile of the Bank and the Bank's Group as well as information on the key measures taken to manage that risk. The Supervisory Board also approves reports confirming the compatibility of the foreign exchange risk profile with the tolerance for foreign exchange risk specified at the level of the Bank and the Bank's Group. The Management Board is responsible for managing the Bank's foreign exchange risk, including supervising and monitoring the measures taken by the Bank to manage foreign exchange risk. The Management Board adopts internal regulations on foreign exchange risk management.

The Risk Management Strategy of PKO Bank Polski S.A. and the PKO Bank Polski S.A. Group defines an acceptable level of foreign exchange risk both in the Bank and the Bank's Group and lays down the principles of foreign exchange risk management in the Bank's Group.

The Bank supervises the functioning of foreign exchange risk management in the individual subsidiaries in the Bank's Group. As part of the supervision, the Bank influences the foreign exchange risk management methods in these entities and supports their development. The Bank also takes into account the level of foreign exchange risk in the operations of the individual entities as part of the foreign exchange risk monitoring and reporting system at the Bank's Group level.

In order to determine the level of foreign exchange risk, the Bank uses the value-at-risk (VaR) model and shock analysis.

Shock analysis (stress tests and crash tests) for foreign exchange risk are used to estimate potential losses on the currency positions taken, where an extraordinary situation occurs on the foreign exchange market, which is not described in a standard manner, using statistical measures. Additionally, the Bank uses shock analysis in the form of a reverse stress test for foreign exchange risk.

The Bank carries out stress test analyses, crash test analyses and reverse stress test analyses, using the following scenarios relating to exchange rate fluctuations:

- 1) hypothetical scenarios in which the hypothetical appreciation or depreciation of foreign exchange rates (by 10% and 30%) is assumed;
- 2) historical scenarios scenarios relating to movements in foreign exchange rates observed in the past;
- 3) reverse stress tests which examine potential exchange rate fluctuations resulting in the Bank's losses at the specified level of the Bank's own funds.

## 2.7.3. Control of foreign exchange risk

The main tools for controlling foreign exchange risk at the level of both the Bank and the Bank's Group are the set strategic limits of tolerance for foreign exchange risk and the limits imposed by the ALCO, defining the acceptable exposure of the Bank's individual portfolios to foreign exchange risk.

The Bank's Group has established limits and thresholds for foreign exchange risk, among other things, for foreign currency positions, 10-day value-at-risk and losses on the foreign exchange market.

#### 2.7.4. Monitoring foreign exchange risk

During 2020, the foreign exchange risk of the Bank's Group was low because the Bank, as a rule, follows the policy of limiting its positions in the main currencies, i.e. EUR, USD, CHF and GBP.

As at 31 December 2020, the Bank's Group noted higher values of both VaR and stress tests as a result write-offs on the reporting date related to legal risk of mortgage loans in foreign currencies. The currency position was limited in the first half of 2021.

The VaR and stress test analysis of the financial assets of the Bank and the Bank's Group (in total for all currencies) exposed to foreign exchange risk were as follows as at 31 December 2020 and as at 31 December 2019:

Table 2.35. Sensitivity of financial assets exposed to foreign exchange risk

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Measure name	31.12.2020	31.12.2019
FX VaR for a 10-day time horizon at the confidence level of 99% (in PLN million) $^{1}$	615	9
Change in CHF/PLN exchange rate by 10% (in PLN million) (stress-test) <sup>2</sup>	1 424	24
Change in EUR/PLN exchange rate by 10% (in PLN million) (stress-test) <sup>2</sup>	18	19
Change in CUR/PLN exchange rate by 10% (in PLN million) (stress-test)	1 430	25

<sup>&</sup>lt;sup>1</sup> Due to the nature of the activities of the Group companies, the value-at-risk measure is presented for the Bank.

As in the case of interest rate risk, given the nature of the activities of the other entities in the Bank's Group which generate a material foreign exchange risk and the specific nature of the market in which they operate, the Bank does not calculate a consolidated VaR sensitivity measure. These entities use their own risk measures to manage foreign exchange risk. A 10-day VaR measure is used by KREDOBANK S.A., it amounted to PLN 0.1 million as at 31 December 2020 and PLN 0.1 million as at 31 December 2019.

## 2.7.5. Reporting foreign exchange risk

The Bank prepares daily, weekly, monthly and quarterly foreign exchange risk reports, with the monthly and quarterly reports concerning also the Bank's Group. The reports contain information on the foreign exchange risk exposure and information on the utilization of the risk limits. The users of such reports are mainly the ALCO, RC, the Management Board, Risk Committee of the Supervisory Board, and the Supervisory Board.

## 2.7.6. Management activities related to foreign exchange risk

The main foreign exchange risk management tools used in the Bank's Group include:

- 1) foreign exchange risk management procedures;
- 2) limits and thresholds for foreign exchange risk;
- 3) defining the acceptable types of foreign exchange transactions and the foreign exchange rates used in such transactions.

The methods of foreign exchange risk management in the entities in the Bank's Group are defined in the internal regulations implemented by those entities for which foreign exchange risk is material. Such regulations are developed after consulting the Bank and taking into account the Bank's recommendations

The acceptable level of foreign exchange risk at the level of both the Bank and the Bank's Group is determined as part of the Risk Management Strategy of PKO Bank Polski S.A. and the PKO Bank Polski S.A. Group.

At least once a year, the Bank reviews the risk management process in order to verify the consistency of the foreign exchange risk management process with the process of managing other risks, the regulatory requirements and the degree of alignment with the scale and complexity of the foreign exchange risk to which the Bank is exposed, which ensures the continued effectiveness of hedging instruments and risk mitigation measures. Additionally, the effectiveness of the risk management process is constantly monitored as part of the reports specified in chapter 2.7.8 of this Report.

## 2.8. Liquidity risk, including financing risk

#### 2.8.1. Introduction

Liquidity risk is the risk of the inability to settle liabilities as they become due because of the absence of liquid assets. A lack of liquidity may be due to an inappropriate structure of the balance sheet, a mismatch of cash flows, non-payment by counterparties, a sudden withdrawal of funds by customers or other market developments.

The purpose of liquidity risk management is to ensure the necessary level of funds needed to settle current and future liabilities (also potential ones), taking into account the nature of the activities conducted and the needs which may arise due to changes in the market environment, by appropriately shaping the structure of the balance sheet and off-balance sheet liabilities.

As part of liquidity risk management, the Bank also manages:

- 1) financing risk, which includes the risk of losing the available sources of financing and the inability to renew the funding matured or losing access to new sources of financing;
- product liquidity risk, for the estimation of which the cost of sale of liquid securities is assessed, which is then used in the main liquidity risk measures, stress testing and within the internal transfer pricing system in the Bank.

The process and the organization of liquidity risk management in the Bank's Group are in compliance with the principles described in chapter 2.1 of this Report.

The liquidity risk management process is supervised by the Supervisory Board which regularly receives information on the risk profile of the Bank and the Bank's Group as well as information on the key measures taken to manage liquidity risk. The Supervisory Board also approves reports confirming the compatibility of the liquidity risk profile with the tolerance for liquidity risk defined at the level of the Bank and the Bank's Group. The Management Board is responsible for managing the Bank's liquidity risk, including supervising and monitoring the measures taken by the Bank to manage liquidity risk. The Management Board adopts internal regulations on liquidity risk management.

The Risk Management Strategy of PKO Bank Polski S.A. and the PKO Bank Polski S.A. Group defines an acceptable level of liquidity risk both in the Bank and the Bank's Group and lays down the principles of liquidity risk management in the Bank's Group.

The Bank supervises the functioning of liquidity risk management in the individual subsidiaries in the Bank's Group. As part of the supervision, the Bank influences the liquidity risk management methods in these entities and supports their development. The Bank also takes into account

<sup>2</sup> Stress test scenarios assume the appreciation or depreciation of PLN against individual foreign currencies; depending on which change generates a bigger loss.

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the level of liquidity risk in the operations of the individual entities as part of the liquidity risk monitoring and reporting system at the Bank's Group level.

The Bank's treasury and liquidity risk management functions are segregated between the Corporate and Investment Banking Area and the Risk Management Area, whereas within the individual entities in the Bank's Group they are centralized. The internal transfer of liquidity within the Bank's Group is restricted to the level of the financing needs being reported and the limits granted. The Bank also sells a selected part of its housing loan portfolio to PKO Bank Hipoteczny, as part of which PKO Bank Hipoteczny issues long-term mortgage covered bonds in PLN and EUR which are secured with the aforementioned receivables.

The Bank's Group has different types of long-term sources of external financing which include loans obtained from international financial institutions, bond issues under the Own Bond Issue Programme of PKO Bank Polski S.A. on the domestic market and the Euro Medium Term Notes (EMTN) programme on the foreign market, bond issues on the foreign market through PKO Finance AB under the EMTN programme, covered mortgage bond issues by PKO Bank Hipoteczny S.A and the securitization of assets by PKO Leasing S.A.

#### 2.8.2. Identification, measurement and assessment of liquidity risk

The identification of liquidity risk consists of identifying its current and potential sources and estimating the materiality of its potential impact on the activities of the Bank and the Bank's Group.

The liquidity policy of the Bank's Group is based on maintaining an adequate level of a liquidity surplus as well as supervisory and internal measures of liquidity and financing risk, by increasing the liquid securities portfolio and stable sources of financing (in particular, a stable deposit base). Money market instruments, including the operations of the open market of the National Bank of Poland, are also used to manage liquidity risk.

The Bank's Group uses, among other things, the following liquidity risk measures:

- 1) contractual liquidity gap a listing of all balance sheet items by contractual maturity;
- 2) adjusted liquidity gap a listing of individual balance sheet categories by adjusted maturity;
- 3) Liquidity Coverage Ratio (LCR) a measure defining the relationship of high quality liquid assets to net outflows in a 30-day horizon in stress conditions (a supervisory measure defined in the CRR);
- 4) Net Stable Funding Ratio (NSFR) a measure defining the relationship of items providing stable funding to items requiring stable funding;
- 5) liquidity surplus a measure defining the Bank's ability to maintain liquidity on each day during the period called a "survival horizon", in stress conditions, taking into account scenarios of various severity and probability;
- 6) liquidity reserve the difference between the most liquid assets and the expected and potential liabilities which mature in a given period;
- 7) national supervisory ratios M3-M4 the measures defined in Resolution 386/2008 of the PFSA, on liquidity standards for banks;
- 8) stable financing to non-liquid assets ratio the relationship of a stable deposit base, own funds and stable market sources of financing to loans, non-current assets and non-liquid securities;
- 9) concentration of long-term market sources of financing the relationship of long-term sources of financing, grouped collectively according to a defined maturity, to a deposit base and all long-term sources of financing;
- 10) measures of stability of the deposit and loan portfolios;
- 11) early warning indicators monitored with a view to early detection of adverse events which may have a negative impact on the liquidity of the Bank or the financial sector (which, when exceeded, trigger off liquidity contingency plans);
- 12) stress tests (stress tests for liquidity).

The main objective of the stress tests performed as part of liquidity risk management is to identify and determine the factors constituting the greatest risk to the Bank's liquidity and to assess their impact on the Bank's liquidity, should they materialize.

The following types of scenarios are used to measure liquidity risk in the Bank:

- 1) scenario of the Bank's survival horizon in stress conditions;
- 2) scenarios of a mass withdrawal of deposits by non-financial customers;
- 3) scenarios of the sensitivity of inflows and outflows to a change in market conditions;
- 4) scenarios of the impact of stress market conditions on the expected losses on the housing loan portfolio;
- 5) scenarios of forecasted liquidity risk in shock conditions;
- 6) scenarios of additional collateral for derivative instruments concluded in the event of the Bank's credit rating being lowered;
- 7) stress tests for intraday liquidity;
- 8) reverse stress tests.

The results of stress tests are used, in particular, in:

- 1) monitoring the Bank's exposure to liquidity risk in stress conditions;
- 2) establishing limits and thresholds imposed on liquidity risk measures;
- 3) controlling the maintenance of a liquidity surplus on each day during the period called a "survival horizon";
- 4) the financial planning process at the Bank;
- 5) determining the symptoms which trigger off the Bank's liquidity contingency plans;
- 6) determining the levels of the ratios which trigger off the Recovery Plan.

## 2.8.3. Control of liquidity risk

The control of liquidity risk covers determining the strategic limits of tolerance for liquidity risk, limits and thresholds which define an acceptable level of the exposure of the entities in the Bank's Group to the risk of short-, mid- and long-term liquidity, tailored to the scale and complexity of the Bank and the Bank's Group.

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## 2.8.4. Monitoring liquidity risk

The adjusted liquidity gaps presented below include a list of maturing assets and liabilities and, in addition, they have been adjusted for certain on-balance sheet and off-balance sheet items to properly present the liquidity position of the Bank and the entities in the Bank's Group.

The key adjustments concern the following:

- 1) the core deposits (excluding the interbank market) and their maturities customers' deposits (current accounts, savings accounts and fixed term deposits) have been classified into respective tenors according to their stability (the maintenance of an appropriate balance or revolving after the maturity date);
- 2) overdraft facilities and credit cards and their maturities the expected cash flows relating to the repayment of overdraft facilities and credit card loans and the discharge of the off-balance sheet liabilities relating to these products have been classified into respective tenors, taking into account the payability of these loans and the possibility of their revolving;
- liquid securities and their maturities the expected cash flows have been classified into respective tenors, according to the possible dates
  of their liquidation (pledging, sale);
- 4) hedging transactions placed in connection with the performance of CSA agreements the expected cash inflows or outflows have been classified into respective tenors, according to the estimated value of deposits to be placed by the Bank or deposits payable to the Bank;
- 5) market sources of financing the expected cash flows have been classified into respective tenors, according to the planned revolving of the maturing market sources of financing;
- 6) off-balance sheet liabilities granted and received the expected cash flows have been classified into respective tenors, according to the estimated dates and degrees of utilization of off-balance sheet liabilities (in particular, loans granted).

The tables below present data concerning a periodic gap and a cumulative periodic gap of the Bank and the entities in the Bank's Group as at 31 December 2020 and 31 December 2019, respectively.

Table 2.36. Adjusted liquidity gap\* - assets and liabilities

2019	a'vista	0-1 month	1-3 months	3-6 months	6-12 months	1-2 years	2-5 years	over 5 years
PKO Bank Polski SA							Ì	
Periodic gap	13 368	25 861	-9 437	-5 561	-928	8 177	30 644	-62 124
Cummulative gap	13 368	39 229	29 792	24 231	23 303	31 480	62 124	0
Bank subsidiaries								
Periodic gap	-2 013	4 922	1 345	-1 724	-2 389	-3 153	-12 439	15 451
Cumulative gap	-2 013	2 909	4 254	2 530	141	-3 012	-15 451	0
Total - Periodic gap	11 355	30 783	-8 092	-7 285	-3 317	5 024	18 205	-46 673
Total - Cumulative gap	11 355	42 138	34 046	26 761	23 444	28 468	46 673	0
2020	a'vista	0-1 month	1-3 months	3-6 months	6-12 months	1-2 years	2-5 years	over 5 years
PKO Bank Polski SA								
Periodic gap	6 558	68 407	-6 911	-2 892	-837	11 124	30 948	-106 396
Cummulative gap	6 558	74 965	68 054	65 162	64 324	75 449	106 396	0
Bank subsidiaries								
Periodic gap	362	1 986	1 137	-1 318	-2 277	-7 656	-12 737	20 503
Cumulative gap	362	2 348	3 485	2 167	-109	-7 766	-20 503	0
Total - Periodic gap	6 920	70 393	-5 774	-4 210	-3 114	3 468	18 210	-85 893

<sup>\*</sup> Calculated as the total of the adjusted liquidity gap of PKO Bank Polski S.A., PKO Bank Hipoteczny, PKO Leasing S.A., PKO Życie Towarzystwo Ubezpieczeń S.A. and KREDOBANK and the contractual liquidity gap of the other companies in the Bank's Group.

In all tenors, the adjusted cumulative liquidity gap of the Bank's Group was positive. This means a cumulative surplus of the maturing assets over the maturing liabilities.

The table below presents the Bank's liquidity surplus as at 31 December 2020 and as at 31 December 2019.

Table 2.37. Bank's liquidity surplus

SENSITIVITY MEASURE	2020	2019
Liquidity surplus in 30-day horizon	14 522	11 572

The Bank maintains a high and safe level of high quality unencumbered liquid assets which constitute a hedge in case extreme liquidity scenarios (a liquidity surplus) materialize. Easily disposable assets include: cash (less the minimum balance maintained at the ATMs and in the Bank's branches), funds in the Bank's nostro accounts (excluding the average level of the mandatory reserve), interbank deposits placed with other banks and liquid securities.

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#### Table 2.38. Liquidity surplus items

CATEGORY	2020	2019
Cash	2 989	3 806
Nostro accounts and deposits	3 340	4 791
Treasury bills and bonds	82 749	57 563
Monetary bills	0	1 000
Other liquid securities	22 698	2 467

The table below shows the supervisory liquidity measures of the Bank and the Bank's Group as at 31 December 2020 and as at 31 December 2019.

Table 2.39. Supervisory liquidity measures [LIQ 2 template]

PKO Bank Polski SA		
Measure	2020	2019
M3	12,59	14,92
M4	1,42	1,25
Bank subsidiaries		
Measure	2020	2019
LCR	227,60%	146,30%
NSFR	134,70%	123,10%

In the period from 31 December 2019 to 31 December 2020, the values of the supervisory measures remained above the supervisory limits.

The structure of the Bank's sources of financing was described in the Bank's annual financial statements as at and for the year ended 31 December 2020 (Note 70. Liquidity risk management). The Bank follows a strategy which consists of using the stable part of the deposit base as the basic source of financing in all currencies. Issues of bonds denominated in EUR, CHF, PLN and USD as well as mortgage covered bonds denominated in EUR and PLN also constitute a significant part of financing for the Bank and the Bank's Group (especially in the case of foreign currencies). Surplus funds obtained on the market in a given currency (issues of securities) are used to manage the Bank's foreign currency liquidity needs, using derivative transactions (mainly CIRS and FX swaps).

Table 2.40. Liquidity Coverage Ratio for the Capital Group (average for 2020) [LIQ1 template]

		2020								
Scope of consolidation (solo	o/consolidated)	Total unweighted value (avg)					Total weighted vlaue (avg)			
Currency and units (PLN mi	urrency and units (PLN million)			.eu value (uvy)			l otal weighted vidue (avg)			
Quarter ending on (DD Mor	nth YYY)	31-03-2020	30-06-2020	30-09-2020 31-12-2020 31-03-2020 30-06-2020 30-09-2020			31-12-2020			
Number of data points used	d in the calculation of averages	12	12	12	12	12	12	12	12	
HIGH-QUALITY LIQUID A	ASSETS									
1	Total high-quality liquid assets (HQLA)					64 132	75 398	86 442	97 42	
CASH-OUTFLOWS										
2	Retail deposits and deposits from small business customers, of which:	164 237	169 931	175 823	195 424	13 651	14 020	14 263	14 41	
3	Stable deposits	114 975	118 035	121 501	137 114	5 905	6 185	6 508	6 85	
4	Less stable deposits	49 243	51 880	54 308	58 310	7 729	7 823	7 750	7 560	
5	Unsecured wholesale funding	72 368	75 252	77 258	82 641	27 068	28 820	29 399	29 45	
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks	34 003	29 744	26 003	26 585	5 333	5 565	6 030	6 479	
7	Non-operational deposits (all counterparties)	37 534	44 694	50 510	55 496	20 894	22 555	22 713	22 41	
8	Unsecured debt	831	815	745	561	841	700	657	56	
9	Secured wholesale funding					0	0	0	(	
10	Additional requirements	49 667	50 979	52 583	57 614	7 455	7 835	8 000	8 050	
11	Outflows related to derivative exposures and other collateral requirements	2 921	2 741	2 486	2 008	1 984	2 100	2 094	2 008	
13	Credit and liquidity facilities	46 745	48 238	50 096	55 607	5 472	5 735	5 906	6 042	
14	Other contractual funding obligations	2 427	2 298	2 384	2 398	1 464	1 621	1 719	1 66	
15	Other contingent funding obligations	18 628	18 485	18 264	17 885	3 878	3 902	3 781	3 65	
16	TOTAL CASH OUTFLOWS					53 516	56 198	57 162	57 24	
CASH-INFLOWS										
17	Secured lending (eg reverse repos)	1 143	1 093	1 013	470	0	0	1		
18	Inflows from fully performing exposures	11 632	11 543	10 970	8 766	8 193	7 442	6 857	6 14	
19	Other cash inflows	1 715	1 685	1 668	1 465	703	791	791	893	
20	TOTAL CASH INFLOWS	14 490	14 321	13 651	10 701	8 896	8 234	7 650	7 04	
EU-20c	Inflows Subject to 75% Cap	14 490	14 321	13 651	10 701	8 896	8 234	7 650	7 04	
		TOTAL ADJUSTED VALUE								
21	LIQUIDITY BUFFER					64 132	75 398	86 442	97 420	
22	TOTAL NET CASH OUTFLOWS					44 620	47 964	49 512	50 203	
23	LIQUIDITY COVERAGE RATIO (%)					144%	156%	173%	194%	

A liquidity coverage ratio is determined individually by each entity in the Bank's Group which is required to determine this ratio and on a consolidated basis for the Bank's Group as a whole. A list of companies subject to consolidation is determined in accordance with the scope of prudential consolidation.

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As at the end of December 2020, the Bank's Group had 2 currencies for which the ratio of the value of liabilities in a given currency to the total value of liabilities in all currencies amounted to at least 5%: PLN and EUR. The Bank's Group had an LCR above 100% for all currencies in total and for PLN.

As at the end of December 2020, the outflows in respect of derivative instruments calculated in accordance with the CRR amounted to PLN 0.5 billion, whereas the impact of the unfavourable market conditions scenario on derivative instruments, financing transactions and other agreements accounted for 0.2% of the total unweighted outflows recognized in the liquidity coverage ratio.

## 2.8.5. Reporting liquidity risk

The Bank prepares daily, weekly, monthly and quarterly liquidity risk reports, with the monthly and quarterly reports concerning also the Bank's Group. The reports contain information on the liquidity risk exposure and information on the utilization of the risk limits. The users of such reports are mainly the ALCO, RC, the Management Board, Risk Committee of the Supervisory Board, and the Supervisory Board.

## 2.8.6. Management activities related to liquidity risk

The main liquidity risk management tools used in the Bank's Group include:

- 1) liquidity risk management procedures, including, in particular, liquidity contingency plans;
- 2) limits and thresholds for liquidity risk;
- deposit, investment and derivative transactions, including structured foreign exchange transactions, and the purchase and sale of securities;
- 4) transactions providing long-term financing for lending activities.

The methods of liquidity risk management in the entities in the Bank's Group are defined in the internal regulations implemented by those entities for which liquidity risk is material. Such regulations are developed after consulting the Bank and taking into account the Bank's recommendations.

The acceptable level of risk at the level of both the Bank and the Bank's Group is determined as part of the Risk Management Strategy of PKO Bank Polski S.A. and the PKO Bank Polski S.A. Group.

At least once a year, the Bank reviews the risk management process (taking into account the ILAAP guidelines) in order to verify whether the liquidity risk management process is adequate to the scale and complexity of the liquidity risk to which the Bank is exposed and consistent with the process of managing other risks and the regulatory requirements. This activity ensures the continued effectiveness of hedging instruments and risk mitigation measures. Additionally, the effectiveness of the risk management process is constantly monitored as part of the reports specified in chapter 2.8.5 of this Report.

## 2.9. Operational risk

## 2.9.1. Introduction

Operational risk is understood as the risk of losses resulting from inadequate or failed internal processes, people and systems or from external events. Operational risk includes legal risk (the risk of incurring losses resulting from the ignorance, misunderstanding and non-application of legal and accounting standards, inability to enforce contractual provisions, unfavourable interpretations or decisions of courts or public administration authorities), but does not include reputation risk or business risk.

The objective of operational risk management is to ensure the operating and cost effectiveness as well as security of the activities by reducing the occurrence of operational events and their negative consequences.

Current operational risk management is carried out by each employee of the Bank's Group as part of their duties and obligations and consists of preventing operational events arising in servicing products, conducting processes and using applications from materializing and of responding to the occurrence of operational events. Such responding includes:

- 1) identifying events and explaining the reasons for their occurrence;
- 2) defining the consequences of operational events;
- 3) recording data on operational events and their consequences;
- 4) monitoring information on operational events and their consequences;
- 5) eliminating the negative consequences of operational events;
- 6) implementing corrective and preventive measures.

The operational risk profile of the Bank and the Bank's Group is understood as the scale and structure of the exposure to operational risk; it is defined by strategic limits of tolerance for operational risk.

The Bank's internal regulations clearly define the segregation of competences between the Supervisory Board and the Management Board in the area of operational risk management. As part of operational risk management, the Supervisory Board supervises the operational risk management process, including:

- 1) approving strategic limits of tolerance for operational risk of the Bank and the Bank's Group;
- 2) approving the operational risk management strategy;
- 3) evaluating the operational risk management process, in particular on the basis of regular operational risk reports taking into account the annual assessment of the adequacy and effectiveness of the operational risk management system.

As part of operational risk management, the Management Board determines the operational risk management process, in particular:

- 1) it sets the objectives of operational risk management;
- 2) it shapes the operational risk management strategy;

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- it adopts resolutions on the operational risk management principles, strategic limits of tolerance for operational risk, and significant changes and extensions of the AMA;
- 4) it accepts the value of the management adjustment to the own funds requirement for operational risk according to the AMA;
- 5) it accepts reports and information on operational risk.

The correctness of the operational risk management process is regularly verified as part of:

- 1) review of the operational risk management strategy and processes aimed at assessing the adequacy and effectiveness of the operational risk management system:
- 2) self-assessment of maintenance of compliance with the AMA requirements;
- 3) validation of the AMA;
- 4) internal audit.

The entities in the Bank's Group manage operational risk in accordance with the principles for managing this risk in the Bank, taking into account the scope and type of the relationships between the entities in the Bank's Group, the specific nature and scale of the operations of the individual entities.

## 2.9.2. Identification, measurement and assessment of operational risk

#### 2.9.2.1. Identification, method of measurement and assessment of operational risk

For the purposes of operational risk management, the Bank collects internal and external data on operational events as well as the reasons for them and the consequences of their occurrence, data on business environment factors, the results of operational risk self-assessment, data on the values of operational risk indicators, and data on the quality of the internal control system.

The operational risk self-assessment includes the identification and assessment of operational risk for the products, processes and applications of the Bank as well as organizational changes. Such self-assessment is conducted regularly and before the introduction of new or changed products, processes and applications of the Bank, using collected data on operational events and information obtained during the measurement, monitoring, cooperation with the entities in the Bank's Group and reporting on operational risk, including internal audits and security audits.

In 2020, PKO Bank Polski S.A. and the PKO Leasing S.A. Group had a decisive impact on the operational risk profile of the Bank's Group.

The measurement of operational risk in the Bank is aimed at determining the scale of the threats related to the occurrence of operational risk, using defined risk measures. Operational risk measurement includes:

- 1) calculation of operational risk indicators: KRI and RI;
- 2) calculation of the own funds requirement for operational risk under the AMA (for the Bank, including the branch in Germany) and BIA (for the branch in the Czech Republic and the entities in the Bank's Group, subject to prudential consolidation);
- stress tests;
- 4) calculation of internal capital for the Bank's Group.

The BIA requirement regarding the Bank's operations subject to the BIA is calculated in accordance with the CRR (Part III, Title III) and applies to the part of the Bank's operations for which the Bank has the PFSA's permission obtained in connection with combining the BIA and AMA approaches to calculating the own funds requirement for operational risk.

The Bank estimates the parameters of the distributions used to measure operational risk on the basis of internal and external data on operational events. The algorithm for estimating these parameters takes into account the thresholds for losses as from which information on operational events is collected. The value of a threshold for internal events was established taking into account the economic cost of collecting information on operational events and their added value in operational risk measurement. The external data used on operational events comes from, among other things, a system of exchange of information on events in the operational risk area (the ZORO) maintained by the Polish Bank Association. Additionally, the operational risk measurement takes into account macroeconomic data and data illustrating the scale of the Bank's operating and business activities.

The own funds requirement for operational risk according to the AMA corresponds to value at risk in respect of operational risk plus the result of a scenario analysis and adjusted for the value of the adjustment for changes in the quality of internal control and a management adjustment, in accordance with the following formula:

AMA = (LDA+AS)\*(1+KW)+KK

where:

AMA - own funds requirement for operational risk (the AMA requirement);

LDA - value at risk;

AS - result of the scenario analysis;

KW - adjustment for changes in the quality of control;

KK - management adjustment.

The AMA requirement measure captures potentially severe tail events, reaching a prudential standard comparable with a 99.9% confidence level over a period of one year.

Value at risk is calculated using a loss distribution approach (LDA). Under this approach, based on historical internal and external data on operational events and on the operational environment, a potential loss is measured which will not be exceeded in the coming year.

The objective of the scenario analysis is to extend the AMA requirement to capture the operational risk relating to the types of operational events which have not been covered with the LDA approach.

The adjustment for changes in the quality of control makes it possible to take into account the possibility of deterioration in the quality of control in the Bank's which would result in an increase in the frequency or severity of operational events.

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The objective of the management adjustment is to include extraordinary events which, due to their specific nature, were not included in the AMA requirement under the LDA approach or in the scenario analysis, in the calculation of the AMA requirement.

Risk measurement includes conducting stress tests related to the possible consequences of materialization of extremely unfavourable, yet possible, scenarios. This is aimed at defining the sensitivity of the Bank's results to the materialization of a test scenario and at determining whether the AMA requirement covers the total losses resulting from the materialization of such scenarios. The previous results of stress tests do not challenge the sufficient conservatism of the AMA requirement. Additionally, the Bank performs the backtesting of the correctness of the AMA requirement calculated. Backtesting results confirm the sufficient conservatism of the AMA requirement.

The Model Validation Department, as an independent unit of the Bank, regularly validates the AMA approach used. The objective of validation of the AMA approach is an independent assessment of the extent to which the model meets the business needs known at the time of the validation.

## 2.9.2.2. The Bank's insurance policy

To minimize the negative financial implications of operational events, the Bank follows an insurance policy which consists of ensuring continuing and effective insurance cover in return for an acceptable cost. PKO Bank Polski S.A. strives to apply uniform insurance principles for the entire Bank's Group so as to optimize the scope and costs of the insurance cover by using the effects of scale.

The Bank's insurance programme is monitored on an ongoing basis in order to identify the needs for the necessary changes.

#### 2.9.2.3. Impact of insurance

In calculating the own funds requirement for operational risk, the Bank takes into account the impact of insurance.

The insurance policies used by the Bank to reduce the own funds requirement for operational risk meet the criteria defined in Article 323 of the CRR and in Article 36-44 of the RTS AMA Regulation and are in compliance with the Bank's internal regulations regarding the calculation of reductions in the own funds requirement for insurance. The Bank's insurance policies concern mainly all risk property insurance and the Bank's liability insurance. In calculating reductions in respect of insurances held, the Bank takes into account deductibles and franchises.

Pursuant to Article 323 of the CRR, the reduction in own funds requirements from the recognition of insurances and other risk transfer mechanisms shall not exceed 20% of the own funds requirement for operational risk before the recognition of risk mitigation techniques.

#### 2.9.3. Control of operational risk

The objective of operational risk management is to strive to maintain the level of operational risk of the Bank and the Bank's Group at a fixed level.

The control of operational risk includes determining risk control mechanisms in the form of operational risk limits, in particular strategic limits of tolerance for operational risk, loss limits and operational risk indicators, including thresholds and critical values, tailored to the scale and complexity of the activities of the Bank and the Bank's Group.

Strategic limits of tolerance for operational risk are defined by the Management Board and approved by the Supervisory Board. Additionally, the Management Board defines the levels of utilization of the strategic limits of tolerance for operational risk for the Bank and the Bank's Group, which, when exceeded, serve as a signal for taking management activities to mitigate operational risk.

The Bank has a system of loss limits allocated to the Bank's individual units or functional divisions managing the operational risk relating to the individual areas of systemic operational risk management, which is aimed at defining the maximum acceptable level of operational risk for the Bank's individual units or functional divisions, ensuring that the strategic limits of tolerance for operational risk are not exceeded.

#### 2.9.4. Monitoring operational risk

The objective of operational risk monitoring is to observe deviations from the benchmarks assumed (in particular limits, thresholds, prior period measurements, recommendations and guidance) in order to diagnose areas requiring management activities.

The Bank regularly monitors, in particular:

- 1) the degree of utilization of strategic tolerance limits for the Bank and the Bank's Group and loss limits for operational risk for the Bank;
- 2) operational events and their consequences;
- 3) the results of self-assessment of operational risk;
- 4) the own funds requirement for operational risk under the BIA with regard to the activities of the branch in the Czech Republic and under the AMA with regard to the Bank's other activities, and under the BIA for the entities in the Bank's Group subject to prudential consolidation;
- 5) the results of stress tests, including reverse stress tests;
- 6) the values of operational risk indicators in relation to thresholds and critical values;
- the level of risk for the Bank and the Bank's Group, areas and tools for managing operational risk in the Bank, such as self-assessment, operational risk indicators, and loss limits;
- 8) the effectiveness and timeliness of the management activities undertaken to reduce or transfer operational risk;
- 9) management activities related to the occurrence of an increased or high level of operational risk and their effectiveness in reducing the operational risk level.

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## 2.9.5. Reporting operational risk

The reporting of information on operational risk is carried out for the needs of senior management, the ORC, RC, the Management Board and the Supervisory Board on a monthly and quarterly basis. The scope of the information is tailored to the scope of responsibility of the individual users of the information.

The users of monthly information include the ORC, senior management, and the Bank's units responsible for systemic operational risk management. Monthly information includes, in particular, information on:

- 1) the number and consequences of operational events;
- 2) the structure of operational events;
- 3) the values of selected operational risk indicators.

The users of quarterly reports are the ORC, RC, the Management Board and the Supervisory Board. Quarterly reports include, in particular, information on:

- 1) the Bank's operational risk profile resulting from the process of identification and assessment of threats to the Bank's products, processes and applications, and the LDA measurement;
- 2) the operational risk level for the Bank, areas and tools for managing operational risk, such as self-assessment, operational risk indicators, and loss limits;
- 3) the results of operational risk measurement and monitoring;
- 4) the activities undertaken to mitigate operational risk and the assessment of the effectiveness of the activities undertaken to reduce the level of operational risk.

## 2.9.6. Management activities related to operational risk

Operational risk is managed at the level of the entire Bank and at the levels of the individual areas of systemic operational risk management.

Systemic operational risk management consists of developing solutions used to control the operational risk level, enabling the Bank's objectives to be achieved. The main areas of systemic operational risk management are:

- security;
- 2) IT;
- 3) settlements;
- 4) human resources;
- 5) business activities;
- 6) administration;
- 7) support (in particular insurance management, outsourcing, building and implementing an internal operational risk measurement model and systems of identification, assessment, monitoring and limiting of operational risk, etc.).

Management activities are undertaken in the following cases:

- 1) on the initiative of the ORC or the Management Board;
- 2) on the initiative of the Bank's units responsible for managing operational risk;
- 3) when operational risk has exceeded the levels set by the Management Board or the ORC.

In particular, if operational risk has reached an increased or high level, the Bank uses the following approaches and operational risk management tools:

- 1) risk reduction mitigating the impact of risk factors or the consequences of risk materialization by implementing or enhancing operational risk management instruments, such as:
  - a) control instruments (among other things, authorization, internal control, separation of functions);
  - b) human resources management instruments (personnel selection, improving employees' qualifications, incentive systems);
  - c) establishing or verifying the thresholds and critical values of operational risk indicators;
  - d) establishing or verifying operational risk limits;
  - e) contingency plans;
- 2) risk transfer the transfer of responsibility for covering potential losses to an external entity:
  - a) insurance;
  - b) outsourcing;
- risk avoidance discontinuation of risk-generating activities or eliminating the probability that a risk factor will occur.

#### 2.9.7. Losses incurred and management activities mitigating operational risk

In 2020, operational risk events were disclosed in the Bank, excluding losses related to the lending process, which comprised the losses presented in Table 2.41 totalling PLN 77.48 million, net (PLN 108.49 million, gross).

The most material operational event was disclosed in the category "Customers, products and operational practices" and related to a penalty imposed on the Bank by the President of the Office of Competition and Consumer Protection (UOKiK) of PLN 41 million for using provisions

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in the contractual template, concerning the determination of a foreign exchange spread, which were found to be unlawful. The Bank has exercised its right to appeal (the UOKiK President's decision is not yet legally valid).

Table 2.41. Losses\* related to disclosed events

PKO BANK POLSKI SA	202	0	
General cathegory	Specific cathegory	Gross losses**	Net losses***
Internal frauds	Non-legitimated activities	0,83	0,03
micernal mados	Thefts and frauds	1,44	0,97
Regulations of employment and work	Labour issues	2,99	1,16
safety	Inequality and discrimination	0,29	0,00
	Customer service, disclosure of information about clients, responsibilities to clients	1,04	0,91
Client, products and operational practises	Improper business or market practices	0,01	0,00
	Products malfunctions	42,10	42,07
	Customer classification and exposures	0,01	0,00
Disruption of bank operations and system failures	Systems	0,25	0,06
	Recording in the system, making, calculating and servicing transactions	20,97	19,42
Making transactions, providing and	Inflow and registering clients	0,00	0,00
managing operational processes	Managing client's bank accounts	0,28	0,14
	Sellers and suppliers	1,00	0,97
Losses related to fixed assets	Natural disasters and other events	1,67	0,43
External frauds	Thefts and frauds	35,60	11,31
Total		108,49	77,48

<sup>\*</sup> The losses do not include losses from operational risk related to credit risk, which are recognized as losses from credit risk and are used to calculate minimum requirements for own funds.

\*\*\* As at 31.12.2020, net losses include realized losses (e.g. provisions, write-downs, expenses).

To mitigate losses from operational risk, the Bank undertakes both ad hoc and systemic management activities. Ad hoc activities include a direct response to the sources of risk identified, eliminating reversible irregularities and recovering lost funds. Systemic activities comprise, among other things, securing IT systems, improving transaction authorization methods, blocking transfers to accounts identified as accounts associated with criminal activities, developing an anti-fraud system, developing and optimizing a system for combating money laundering and terrorism financing (AML), processes improvement, internal control optimization, training, risk transfer (insurance, outsourcing).

The Bank is constantly increasing the security of IT systems, in particular in the area of applications used by the Bank's customers – this includes, among other things, active combating of phishing websites impersonating the Bank's transactional systems, keeping track of the development of malware which attacks the Bank's customers, developing mechanisms of detecting infected customers' computers, as well as improving the rules and extending the scope of electronic transaction monitoring.

The 3D Secure verification implemented in 2016 significantly reduced the number of online transactions which are not authorized by the Bank's customers. In the event of a Chargeback complaint process arising, merchants who do not carry out such verification are obliged to return the funds disputed by the customer.

A specialist unit CERT operating within the Bank pursues a strategy for ensuring IT security of the services provided by the Bank. CERT PKO BP is a member of an international forum which brings together response teams – FIRST and belongs to the working group of European response teams – TERENA TF-CSIRT and the organization Trusted Introducer which operates with it. Joining international organizations allows the Bank's CERT team to respond more effectively and quickly to cyber security threats through operational cooperation and sharing experience and knowledge with similar entities around the world. The membership is also a confirmation of the high level of the services provided and the recognition of professionalism and skills in ensuring the Bank's IT security. As a result, the Bank is perceived as an organization which meets top national and international standards in cyber security. As from 2019, the CERT PKO BP team operates on a 24/7/365 basis, and as part of its activities it pro-actively fights Internet threats, in particular those related to online and mobile banking.

The Bank's representatives get involved in the work carried out as part of the Banking Cybersecurity Centre (BCC) operating as part of the Polish Bank Association. The BCC's objective is to carry out comprehensive and long-term activities at several levels: the intrasector level, the intersector level (among other things, cooperation with institutions in the telecommunications, transport or power sectors), the national level (cooperation with the state administration and law enforcement bodies) and the international level, aimed at increasing the level of security of mobile and electronic banking and preparing tools (structures, procedures, information exchange mechanisms) for managing emergency situations (e.g. in the event of a massive cyberattack on the banking sector).

<sup>\*\*</sup> According to Recommendation M of the PFSA, as at 31.12.2020 gross losses include realized losses (e.g. provisions, write-downs, expenses) and unrealized losses (potential losses); however, they do not include direct recoveries or recoveries from the risk transfer mechanism.

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As part of cooperation in exchanging information about threats, in 2020 the Bank used information on malware, incidents or phishing attacks, in particular data on trends and new threats from the CIRCL – the Computer Incident Response Center Luxembourg and the NICP – institutions participating in the NATO Industry Cyber Partnership of which PKO Bank Polski S.A. is a member as the only bank from Poland.

As regards the physical security of facilities, the monetary values they hold and the information they process, technical safeguards and remote protection in the form of monitoring of alarm signals with the guaranteed arrival of intervention teams are used. Additionally, on-site protection is provided in selected branches and key facilities. Physical protection management, monitoring of alarm signals and the work on securing the facilities are aimed at minimizing risks related to storing substantial amounts of cash, such as robberies, burglaries and other risks to physical security, such as fires, property damage, vandalism and terrorism. Due to the COVID-19 epidemic, in 2020 physical protection was adapted to the organizational changes in the work of the departments.

The technical safeguards and physical protection also serve the purpose of securing the Bank's ICT infrastructure, the information processed at the Bank, which constitutes banking secrecy, and personal data by ensuring a level of security required by law, adequate to the assessment of operational risk and optimal in terms of costs. The security inside the facilities is provided through physical restrictions and control of access to protected areas in which monetary values and deposits are stored, protected data is processed or the key elements of the IT system are situated, by using continually upgraded alarm, access control, CCTV and fire protection systems.

In 2020:

- 1) among other things, projects were carried out which consisted of upgrading fire protection systems in selected facilities;
- 2) the Bank intensified its measures to prevent burglaries into ATMs with the use of explosives;
- 3) new mechanisms were implemented to tighten up the process of monitoring in electronic banking;
- 4) the systems for detecting incidents, anomalies and advanced types of malware were enhanced, and the handling of incidents was

The Bank has continued its measures to prepare a comprehensive biometric solution. Its purpose is to develop a system which enables safe and effective verification of a person based on his or her unique physical or behavioural features, using an innovative biometric technology. The technology is safe and resistant to forgery. The solution being prepared by the Bank will complement the existing authorization methods and a starting point for working on new technologies used in banking. In 2020, the Bank began working on projects co-financed by the National Centre for Research and Development which are aimed at enabling PKO BP S.A.'s customers to use multimodal biometrics at the Bank's branches and in the mobile channels, as well as developing a system which will significantly increase the level of users' safety (not only in the Internet) and simplify the use of remote services by using advanced, multi-component and scaleable methods of authentication as well as storage and management of a digital identity, using a blockchain network.

## 2.10. Business risk

## 2.10.1. Introduction

Business (strategic) risk is the risk of failing to achieve the assumed financial goals, including incurring losses, due to adverse changes taking place in the business environment, making bad decisions, incorrect implementation of the decisions made or failing to take appropriate action in response to changes taking place in the business environment.

The objective of business risk management is to maintain the potential negative financial consequences resulting from adverse changes taking place in the business environment, making bad decisions, incorrect implementation of the decisions made or failing to take appropriate action in response to changes taking place in the business environment at an acceptable level.

#### 2.10.2. Identification, measurement and assessment of business risk

The identification of business risk consists of recognizing and determining factors, both current and potential ones which arise from current and planned activities of the Bank's Group and which may significantly affect the financial position of the Bank's Group, generating revenue and expenses of the Bank's Group or a change in their amounts. Business risk is identified by making a qualitative assessment of business risk and by identifying and analysing the factors which contributed to significant deviations of the actual amounts of revenue and expenses from their forecasted amounts.

The measurement of business risk is aimed at defining the scale of threats related to the existence of business risk, using predetermined risk measures. The measurement of business risk includes:

- 1) the calculation of internal capital;
- 2) conducting stress tests;
- 3) conducting reverse stress tests.

The level of business risk is assessed on a quarterly basis, based on the risk level resulting from:

- 1) level of strategic tolerance limits calculated;
- 2) a qualitative assessment of business risk.

## 2.10.3. Control of business risk

The objective of the control of business risk is to strive to maintain the level of business risk of the Bank's Group at an acceptable level.

The control of business risk includes determining and reviewing risk controls in the form of limits of tolerance for business risk along with its thresholds and critical values, adequate to the scale and complexity of the activities of the Bank's Group, on a regular basis.

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## 2.10.4. Monitoring business risk

The objective of monitoring business risk is to diagnose the areas which require management activities. The monitoring of business risk includes, in particular:

- 1) strategic limits of tolerance for business risk;
- 2) results of stress tests;
- 3) results of reverse stress tests;
- 4) internal capital level;
- 5) deviations of the actual business risk from forecasts;
- 6) results of a qualitative assessment of business risk.

#### 2.10.5. Reporting business risk

The reporting of the business risk of the Bank's Group is performed on a quarterly basis. The users of business risk reports include the ALCO, RC, the Management Board, Risk Committee of the Supervisory Board, and the Supervisory Board. The reports include, among other things, the results of business risk measurement, in particular internal capital, the degree of utilization of the strategic limit of tolerance for business risk, results of a qualitative assessment of business risk, a forecast for internal capital to cover business risk, backtesting of the forecast, and the results of monitoring the amounts of the Bank's revenue and expenses, results of stress tests and reverse stress tests, results of an annual assessment of the adequacy and effectiveness of risk management, including a business risk management process review, information on the business risk in the entities in the Bank's Group, in particular internal capital and the degree of utilization of the strategic limit of tolerance for business risk.

## 2.10.6. Management activities related to business risk

The management activities consist of, in particular:

- 1) verifying and updating quarterly financial forecasts, including activities aimed at reducing the level of business risk;
- 2) monitoring the level of the strategic limit of tolerance for business risk.

#### 2.11. Model risk

## 2.11.1. Introduction

Model risk is the risk of incurring losses as a result of making wrong business decisions on the basis of the models in place. The model risk in the Bank's Group is managed both at the level of a given entity in the Bank's Group (the owner of a model) and at the level of the Bank as the parent company in the Bank's Group.

The objective of model risk management is to mitigate the risk of incurring losses as a result of making wrong business decisions on the basis of the models in place through a properly defined and implemented model management process.

All the models significant to the Bank's Group, are subject to an independent validation carried out by the validation unit of PKO Bank Polski S.A.

## 2.11.2. Identification, measurement and assessment of model risk

The identification of model risk consists of, in particular:

- 1) collecting information on the models in place and models planned to be implemented;
- 2) determining the significance of the models on a regular basis.

The assessment of model risk is aimed at determining the scale of threats relating to the existence of model risk. The assessment makes it possible to determine the risk profile and to identify the models which generate the highest risk, exposing the Bank's Group to potential losses. Model risk is assessed at the level of each model and in aggregate, at the level of each entity in the Bank's Group.

## 2.11.3. Control of model risk

The objective of the control of model risk is to maintain an aggregated assessment of model risk at a level which is accepted by the Bank's Group. The control of model risk consists of determining the mechanisms used to diagnose the level of model risk and the tools for reducing the level of that risk. The tools used to diagnose model risk include a strategic limit of tolerance for model risk and model risk thresholds.

## 2.11.4. Monitoring and reporting model risk

The objective of monitoring model risk is to diagnose the areas which require management activities. The monitoring of model risk includes:

- 1) updating the model risk level;
- 2) assessing the utilization of the strategic limit of tolerance for model risk and model risk thresholds;
- 3) verifying the status of implementation and assessing the effectiveness of model risk mitigation activities.

The monitoring results are presented regularly in reports intended for the RC, the Management Board, Risk Committee of the Supervisory Board, and the Supervisory Board, and they contain a comprehensive assessment of model risk, in particular:

1) information on the degree of utilization of the strategic limit of tolerance for model risk;

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- 2) information on the level of model risk (on a separate and consolidated basis);
- 3) model risk map;
- 4) assessment of the effectiveness of the recommendations made to reduce the level of model risk;
- suggested new management activities (if any) to mitigate model risk.

#### 2.11.5. Management activities related to model risk

The objective of management activities is to shape the process of management of model risk and the level of such risk by setting acceptable risk levels and making decisions to use tools which support model risk management.

## 2.12. Macroeconomic risk

#### 2.12.1. Introduction

Macroeconomic risk is the risk of deterioration in the financial position of the Bank's Group as a result of an adverse impact of changes in macroeconomic conditions.

The objective of macroeconomic risk management is to identify macroeconomic factors which have a significant impact on the activities of the Bank's Group and to take action to mitigate the adverse impact of potential changes in the macroeconomic situation on the financial position of the Bank's Group.

#### 2.12.2. Identification, measurement and assessment of macroeconomic risk

The identification of macroeconomic risk consists of determining the scenarios of potential macroeconomic changes and risk factors having the greatest impact on the financial position of the Bank's Group. Macroeconomic risk results from the interaction of factors dependent on the activities of the Bank's Group (in particular, the balance sheet structure and response plans developed for stress scenario purposes) and factors independent thereof (macroeconomic factors). The Bank's Group identifies factors affecting the level of macroeconomic risk in the course of comprehensive stress tests.

The measurement of macroeconomic risk is aimed at defining the scale of threats related to the existence of macroeconomic risk and includes:

- 1) calculation of the results of operations and their components as well as risk measures as part of comprehensive stress tests;
- conducting reverse stress tests;
- 3) the calculation of internal capital.

The level of macroeconomic risk is assessed annually, based on the results of periodical comprehensive stress tests (scenarios for assessing macroeconomic risk). The level of macroeconomic risk is assessed as moderate, increased or high.

#### 2.12.3. Control of macroeconomic risk

The objective of the control of macroeconomic risk is to strive to mitigate the adverse impact of potential changes in the macroeconomic situation on the financial position of the Bank's Group.

The control of macroeconomic risk consists of determining an acceptable level of macroeconomic risk tailored to the scale of the activities of the Bank's Group and its impact on the operations and financial position of the Bank's Group. An acceptable level of macroeconomic risk is a situation in which the results of comprehensive stress tests do not indicate the need to take any remedial measures or the remedial measures which must be taken will be sufficient to improve the financial position of the Bank's Group.

#### 2.12.4. Monitoring macroeconomic risk

The monitoring of macroeconomic risk consists of analysing the macroeconomic situation, the macroeconomic factors to which the Bank's Group is sensitive, the level of macroeconomic risk and the results of comprehensive stress tests.

#### 2.12.5. Reporting macroeconomic risk

Macroeconomic risk is reported quarterly in the form of a report submitted to the ALCO, RC, the Management Board, Risk Committee of the Supervisory Board, and the Supervisory Board.

In particular, the following is reported:

- 1) results of the assessment of macroeconomic risk, in particular internal capital;
- 2) the level of macroeconomic risk;
- 3) results of comprehensive stress tests;
- 4) results of reverse stress tests.

#### 2.12.6. Measurement activities related to macroeconomic risk

The management activities consist of, in particular:

- 1) determining acceptable risk levels;
- 2) taking measures to reduce the risk level in the event of an increased or high level of macroeconomic risk.

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# 2.13. Risk management at PKO Bank Hipoteczny S.A.

The risk management system in place at PKO Bank Hipoteczny S.A. is consistent with the one in place in the Bank's Group.

Due to the specialist nature of a mortgage bank:

- 1) credit risk management relates mainly to competences in the mortgage loan segment, the assessment of the credit standing of retail customers, and the assessment of the mortgage lending value (MLV) of real estate;
- 2) the main source of financing is the issue of long-term mortgage covered bonds, liquidity management competences are focused on issuing instruments on the domestic and foreign secured debt markets.

PKO Bank Hipoteczny S.A. builds its mortgage loan portfolio by way of agency sales and purchasing receivables from the parent company. The mortgage loan portfolio forms the basis of a collateral pool securing the issue of mortgage covered bonds.

The mortgage lending value of real estate is a value determined by PKO Bank Hipoteczny S.A. which, in the bank's opinion, reflects the level of the risk relating to the real estate as collateral for loans granted and is used to determine the amount up to which a loan secured with a mortgage on given real estate may be granted or to decide whether the receivable secured with the said real estate may be purchased by the bank

PKO Bank Hipoteczny S.A. determines the MLV based on an appraisal of the mortgage lending value of real estate, which is carried out with due diligence and prudence, taking into account only those features of the real estate and the expenditure necessary to build it that will be durable and, assuming the reasonable operation thereof, will be possible to obtain by each owner of the real estate. In the appraisal, which is prepared for a specific date, the assumptions and parameters adopted for the analysis, the MLV determination process and the resultant proposed MLV are documented. The appraisal takes into account the analyses and forecasts concerning the parameters specific to given real estate, which affect the assessment of credit risk, as well as general factors, e.g. population growth, the unemployment rate, local land development plans.

A mortgage covered bond is a registered or bearer debt security issued by mortgage banks on the basis of a pool of receivables secured with a mortgage. Mortgage covered bonds are mainly issued for longer terms, therefore, they constitute a source of long-term financing for the Bank's Group.

PKO Bank Hipoteczny S.A.'s business model assumes a large percentage of mortgage covered bonds in the financing structure. A mortgage covered bond is a stable source of financing, but due to the balloon nature of its redemption in most cases, at the time of redemption, such financing has to be replaced with more issues or an alternative source of financing. In managing liquidity, PKO Bank Hipoteczny S.A. pays special attention to matching cash flow dates and the opportunities to renew its sources of financing at the time of maturity of significant liabilities (the redemption of mortgage covered bonds).

The risk management system and quantitative information on disclosures can be found in the Financial Statements of PKO Bank Hipoteczny S.A. as at and for the year ended 31 December 2020 and in the Directors' Report of PKO Bank Hipoteczny S.A. as at and for the year ended 31 December 2020.

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# 3. Own funds

For capital adequacy purposes, own funds are calculated in accordance with the provisions of the Banking Law, Part Two of the CRR and the secondary legislation for the CRR.

The own funds of the Bank's Group include Common Equity Tier 1 capital and Tier 2 capital. No elements of Additional Tier 1 capital are identified in the Bank's Group.

Common Equity Tier 1 capital includes:

- 1) share capital presented in accordance with the Articles of Association and the entry in the Commercial Register, at nominal value;
- 2) supplementary capital created as a result of the annual appropriation of net profit and earmarked for offsetting accounting losses which may arise in connection with the Group's operations;
- reserve capital created independently of the supplementary capital as a result of the annual appropriation of net profit, in an amount determined in a resolution adopted by the General Meeting (hereinafter called the "GM") and earmarked solely for offsetting possible accounting losses;
- 4) other cumulative comprehensive income (excluding gains and losses relating to cash flow hedges);
- 5) general risk reserve created by appropriating net profit, in an amount determined in a resolution adopted by the GM and earmarked for unidentified banking risks;
- 6) retained earnings (unappropriated profits);
- 7) the net profit (loss) in the course of being approved and the net profit (loss) for the current reporting period, calculated in accordance with the applicable accounting policies, less any expected charges and dividends, in amounts no higher than the profit amounts verified by a registered auditor; a net profit (loss) may be recognized in own funds on condition that it is approved by the General Meeting or, before being approved by the GM, the PFSA's consent to its recognition in own funds is obtained. Once the aforementioned formal requirements have been met, the Bank makes retrospective adjustments to own funds.<sup>11</sup>

The Common Equity Tier 1 capital is reduced by:

- 1) losses for the current financial year;
- 2) intangible assets stated at their carrying amounts, net of the related deferred income tax provision; the amount being deducted includes goodwill taken into account in the valuation of the Group's significant investments, software assets subject to prudential valuation are not deducted:<sup>12</sup>
- 3) additional adjustments to assets measured at fair value, which result from compliance with the requirements for prudential valuation;
- 4) additional adjustments to the fair valuation of derivative instruments, reflecting the Bank's own credit risk;
- 5) deferred income tax assets based on future profitability and not resulting from temporary differences;
- 6) deferred income tax assets based on future profitability and resulting from temporary differences, which exceed 10% of the Common Equity Tier 1 capital of the Bank's Group (calculated without taking into account deductions in respect of equity exposures and deferred tax assets);
- 7) direct and indirect equity exposures to financial sector entities if the Bank's Group has not made significant investments in these entities, in the form of shares held or other Common Equity Tier 1 instruments or Tier 2 instruments of these entities, provided that their total exceeds 10% of the Common Equity Tier 1 capital of the Bank's Group (calculated without taking into account deductions in respect of equity exposures and deferred tax assets);
- 8) direct and indirect equity exposures to financial sector entities if the Bank's Group has made significant investments in these entities, in the form of shares held or other Common Equity Tier 1 instruments of these entities, the total of which exceeds 10% of the Common Equity Tier 1 capital of the Bank's Group (without taking into account deductions in respect of equity exposures and deferred tax assets);
- 9) the amount by which the total of:
  - deferred income tax assets based on future profitability and resulting from temporary differences, up to 10% of the Common Equity
    Tier 1 capital of the Bank's Group (calculated without taking into account deductions in respect of equity exposures and deferred tax
    assets) and
  - direct and indirect equity exposures to financial sector entities if the Bank's Group has made significant investments in these entities, in the form of shares held or Common Equity Tier 1 instruments of these entities, up to 10% of the Common Equity Tier 1 capital of the Bank's Group (calculated without taking into account deductions in respect of equity exposures and deferred tax assets)
  - exceeds an equivalent of 17.65% of the Common Equity Tier 1 capital of the Bank's Group (calculated taking into account all the deductions specified in points 1-6 and the full total of the items specified in points 9 a-b, without using a threshold representing 17.65% of the share capital;
- 10) the applicable amount of insufficient coverage for non-performing exposures, calculated in accordance with Article 47c of the CRR, except for the amount of insufficient coverage relating to exposures which arose before 26 April 2019, provided that the conditions of these exposures have not been changed in a manner that increases the Bank's exposure to a debtor.

An amount below the threshold (17.65%) is recognized in risk-weighted assets.

Tier 2 capital includes, once the Bank has obtained the PFSA's consent, subordinated liabilities understood as liabilities in respect of funds acquired by the Bank, in the amount and in accordance with the rules laid down in the PFSA's decision issued at the Bank's request, which meet the conditions set out in Article 63 of the CRR.

The Tier 2 capital is reduced by:

1) direct and indirect equity exposures to financial sector entities in the form of Tier 2 capital instruments of these entities if an institution has made significant investments in these entities;

<sup>&</sup>lt;sup>11</sup> In May 2020, the European Banking Authority (EBA) published, in a single rulebook Q&A, its position on the timing of recognition of year-end and interim profits in the capital adequacy data (Q&A 2018\_3822 and Q&A 2018\_4085). According to this position, once the Bank or the Group has formally met the criteria for including its profit for a given period in the Tier 1 capital, this profit should be included retrospectively (as at the date of the profit, and not the date of meeting the criteria), and own funds should be adjusted accordingly as at the date to which the profit relates.

<sup>12</sup> As regards software, the amount deductible from own funds is determined on the basis of accumulated prudential amortization of software assets, calculated as from the date on which software assets are available for use and begin to be amortized for accounting purposes. The remaining amount of software is recognized in risk-weighted assets with a 100% weight.

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2) direct and indirect equity exposures to financial sector entities if an institution has not made significant investments in these entities, in the form of shares held or other Tier 2 capital instruments provided that the total amount of these exposures exceeds 10% of Common Equity Tier 1 capital Bank.

If the value of the deductions referred to in points 1 and 2 should reduce the value of Tier 2 capital to less than zero, the value of the excess of these deductions over the value of Tier 2 capital is deducted from Common Equity Tier 1 capital.

Pursuant to Commission Implementing Regulation 1423/2013, Table 3.1 presents the reconciliation of the items in the statement of financial position used to calculate own funds to regulatory own funds as at 31 December 2020.

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Table 3.1. Reconciliation of items of own funds and equity reported in the audited financial report

			2020			
	IFRS compliant financial report	De-consolidation of entities not subject to prudential consolidation		Items not recognized in the regulatory own funds	Items recognized in the regulatory own funds	
Assets						
Intangible assets	3 280	-163	3 117	-892	2 225	
Liabilities						
Subordinated liabilities	2 716	0	2 716	-16	2 700	
Capital						
Share capital	1 250	0	1 250	0	1 250	
Supplementary capital	29 519	0	29 519	0	29 519	
Other reserves	3 137	-78	3 059	0	3 059	
General banking risk reserve	1 070	0	1 070	0	1 070	
Other income	1 363	2	1 365	-355	1 010	
Revaluation capital related to assets avalable for sale	1 293	-7	1 286	0	1 286	
Revaluation capital related to cash flow hedging instruments	355	0	355	-355	0	
Exchange differences	-260	-2	-262	0	-262	
Actuarial gains / losses	-21	0	-21	0	-21	
Share in other comprehensive income of an associated entity	-4	11	7	0	7	
Net profit for the current period	-2 557	7	-2 550	0	-2 550	
Previous years' result	6 142	335	6 477	0	6 477	
Non-Controlling Interest	-13	13	0	0	0	
Total own funds	39 911	279	40 190	-355	39 835	
Additional deductions					1 206	
Additional adjustments of assets measured at fair value						
Deferred tax assets reliant on future profitability excluding those arising from temporary differences						
Securitization						
Adjustments resulting from IFRS 9 during the transition period					1 652	
Own funds total used for calculation of capital adequacy ratio					41 516	

Pursuant to Commission Implementing Regulation 1423/2013, Table 3.2 presents information on the nature and amounts of individual own funds used to calculate a Total Capital ratio as at 31 December 2020. The rows with values equal to 0 were left out.

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	le 3.2. Own funds used for calculation of capital adequacy ratio (consolidated basis)  2020		
Con	nmon Equity Tier I capital: Instruments and reserves	(A) Value at the disclosure date	(B) Reference to the Article of Regulation (EU) No 575/2013
1	Capital instruments and the related share premium accounts	1 250	Art. 26 par. 1 subpar. a) and b)
	of which: A-SERIES REGISTERED SHARES	313	
	of which: A-SERIES COMMON BEARER SHARES	197	
	of which: B-SERIES COMMON BEARER SHARES	105	
	of which: C-SERIES COMMON BEARER SHARES	385	
	of which: D-SERIES COMMON BEARER SHARES	250	
2	Retained earnings	3 927	Art. 26 par. 1 subpar. c), Art. 28
3	Accumulated other comprehensive income	33 943	Art. 26 par. 1 subpar. d) and e)
3a	Funds for general banking risk	1 070	Art. 26 par. 1 subpar. f)
6	Common Equity Tier I prior to regulatory adjustments	40 190	Art. 26
Con	nmon Equity Tier I capital: regulatory adjustments		
7	Additional value adjustment (negative value)	-363	Art. 34
8	Intangible assets (net of related deferred tax liabilities) (negative value)	-2 225	Art. 36 par. 1 subpar. b)
10	Deferred tax assets reliant on future profitability excluding those arising from temporary differences (net of related income tax liabilities providing the conditions in Article 38 (3) are met) (negative value)	0	Art. 36 par. 1 subpar. c), Art. 38
11	Fair value reserves related to gains or losses resulting from cash flow headging instruments	-355	Art. 33 par. 1 subpar. a)
14	Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	-16	Art. 33 par. 1 subpar. c)
20	Adjustments resulting from IFRS 9 during the transition period	1 652	0
20a	Amount of exposure of the following items eligible for a risk weight of 1,250%, if the institution decides on a variant of the deduction	-67	0
20c		-67	0
21	Deferred income tax assets resulting from temporary differences (an amount exceeding the 10% threshold, after deducting the related deferred tax liability if the conditions specified in Article 38 paragraph 3 are met) (negative amount)	0	0
22	Amount exceeding the 15% threshold (negative value)	0	0
23	of which: direct and indirect instruments of Tier 1 capital in the financial sector held by the institution, if the institution has invested heavily in these entities	0	0
24	Empty collection in UE	0	0
25	of which: deferred income tax assets resulting from temporary differences	0	0
25a	Losses for the current financial year (negative amount)	0	0
25b	Foreseeable tax expense related to Common Equity Tier 1 items (negative amount)	0	(

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26	Regulatory adjustments applied to Common Equity Tier I in respect of amounts subject to pre-CRR treatment	0	Art. 469 par. 1 subpar. a) and b), Art. 472 par. 5, Art. 468 par. 4, Art. 472 par. 2, Art. 478
26a	Regulatory adjustments relating to unrealised gains and losses pursuant to Article 467 and 468	0	Art. 467, Art. 468
	of which: filter for unrealised loss 1	0	Art. 467
	of which: filter for unrealized loss 2	0	Art. 467
	of which: filter for unrealised loss 3	0	Art. 467
28	Total regulatory adjustments to Common equity Tier I	-1 374	
29	Common Equity Tier I capital	38 816	Art. 50
Addi	tional Tier I: regulatory adjustments		
45	Tier I capital (Tier I = Common Equity Tier I + Additional Tier I capital)	38 816	Art. 25
Tier	II capital: instruments and provisions		
46	Capital instruments and the related share premium accounts	2 700	Art. 62 subpar. a), Art. 63
51	Tier II capital before regulatory adjustments	2 700	Art. 62
Tier	II Capital: regulatory adjustments		
58	Tier II capital	2 700	Art. 71
59	Total capital (Tier I + Tier II capital)	41 516	Art. 72
60	Total risk weighted assets	228 413	
Capi	tal ratios and buffers		
61	Common Equity Tier 1 capital (expressed as a percentage of the total risk exposure amount)	0,17	Art. 92 par. 1 subpar. a)
62	Tier 1 capital (expressed as a percentage of the total risk exposure amount)	0,17	Art. 92 par. 1 subpar. b)
63	Total capital (expressed as a percentage of the total risk exposure amount)	0,18	Art. 92 par. 1 subpar. c)
64	Institution specific buffer requirement (CET1 requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus systemically important institution buffer expressed as a percentage of risk exposure amount)	3,50	
65	of which: capital conservation buffer requirement	2,50	
66	of which: countercyclical buffer requirement	0,00	
67	of which: systemic risk buffer requirement	0,00	
67a	of which: Global Systemically Important Institution (G-SII) or other Systemically Important Institution (O-SII) buffer	1,00	
68	Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)	8,99	
Amo	unts below the thresholds for deduction (before risk weighting)		
72	Direct and indirect holdings of the capital of financial sector entities where the institution does not have a significant investement in those entities (amount below 10% threshold and net of eligible short positions)	453	Art. 36 par. 1 subpar. h), Art. 46 par. 4
73	Direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investement in those entities (amount below 10% threshold and net of eligible short positions)	928	Art. 36 par. 1 subpar. i), Art. 48 par. 1, Art. 470
75	Deferred tax assets arising from temporary differences (amount below 10% threshold, net of related tax liability where the conditions in Article 38 (3) are met)	2 671	Art. 36 par. 1 subpar. c), Art. 48 par. 1, Art. 470

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As at 31 December 2020, pursuant to Article 48 of the CRR the individual equity exposures to financial sector entities did not exceed 10% of Common Equity Tier 1 capital, and the excess over the 10% threshold does not constitute a deduction from the Bank's own funds but is recognized in risk-weighted assets with a 250% risk weight. On a consolidated basis, the investments did not exceed 10% of Common Equity Tier 1 capital, either, therefore, they do not constitute deductions from the Bank's own funds and were recognized in risk-weighted assets.

A description of the main features of the instruments issued by the Bank and recognized in Common Equity Tier 1 capital and Tier 2 instruments is presented in Table 3.3. (the data is presented in PLN). The rows not related to the Bank's Group were left out.

Table 3.3. Capital instruments' main features (PLN)

Capito	al instruments	Name I	Name II	Name III	Name IV	Name V	Name VI	Name VII
1	Issuer	РКО ВР	РКО ВР	РКО ВР	PKO BP	PKO BP	PKO BP	РКО ВР
2	Unique identifier (eg. CUSIP or Bloomberg identifier for private placement)	PLPKO0000016	PLPKO0000016	PLPK00000016	PLPK00000016	PLPKO0000016	PLPKO0000099	PLPK00000107
3	Governing law(s) of the instrument	Polish law						
4	Transitional CRR rules	Common Equity Tier I	Tier 2	Tier 2				
5	Post-transitional CRR rules	Common Equity Tier I	Tier 2	Tier 2				
6	Eligible at solo/(sub-)consolidated / solo and (sub-) consolidated	Solo and consolidated	Solo and consolidated	Solo and consolidated	Solo and consolidated	Solo and consolidated	Solo and consolidated	Solo and consolidated
7	Instrument type (types to be specified by each jurisdiction)	common stock	bonds	bonds				
8	Amount recognised in regulatory capital (PLN, as of most recent reporting date)	312 500 000	197 500 000	105 000 000	385 000 000	250 000 000	1 700 000 000	1 000 000 000
9	Nominal amount of instrument	312 500 000	197 500 000	105 000 000	385 000 000	250 000 000	1 700 000 000	1 000 000 000
9a	Issue price	312 500 000	197 500 000	105 000 000	385 000 000	250 000 000	-	-
12	Perpetual or dated	perpetual	perpetual	perpetual	perpetual	perpetual	dated	dated
13	Original maturity date	no maturity	28.08.2027	06.03.2028				
17	Fixed or floating dividend / coupon	Floating dividend	Floating coupon	Floating coupon				
30	Write-offs	No						
36	Non-compliant transitional features	No						

As at 31 December 2020, the Grou's own funds calculated for capital adequacy purposes included the current result of the prudentially consolidated Group in the amount of PLN -2,550 million. Moreover the Bank's net profit for 2019 was included in the funds (of PLN 3 834.5 million, without earmarking a portion of the profit for dividend payments to the shareholders), with a portion of this amount (PLN 1 038 million) having already been recognized in the Group's own funds as at 31 December 2019 due to obtaining the PFSA's approvals for the recognition of the net profit for the first half of 2019, less expected charges, in own funds. This profit increased the Bank's reserve capital by PLN 2,2 million, and the remainder (PLN 3 832.3 million) remained unappropriated in accordance with the resolution of the Annual General Meeting of Powszechna Kasa Oszczędności Bank Polski Spółka Akcyjna of 26 August 2020 on the appropriation of PKO Bank Polski S.A.'s profit earned in 2019. Additionally, the reserve capital was used to offset the accumulated losses (PLN 110.8 million) which resulted from changes in the accounting policies due to the first-time adoption of International Financial Reporting Standard 16 ("Leases"). The Bank's unappropriated profits for the previous years of PLN 1667.7 million remained unappropriated.

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# 4. Own funds requirements

Pursuant to the CRR, the Bank's Group calculates own funds requirements for the following types of risk:

- 1) credit risk under the standardized approach (pursuant to Part III, Title II, Chapter 2 of the CRR);
- operational risk:
  - a) under the AMA in respect of the Bank's operations, including the operations of the foreign branch in Germany <sup>13</sup> and excluding the foreign branch in the Czech Republic;
  - b) under the BIA (pursuant to Part III, Title III of the CRR) in respect of the operations of the foreign branch in the Czech Republic and in respect of the operations of the entities in the Bank's Group, subject to prudential consolidation;
- 3) market risk (pursuant to Part III, Title IV, Chapters 2-4 of the CRR)
  - a) foreign exchange risk calculated under the basic approach;
  - b) commodities risk calculated under the simplified approach;
  - c) equity instrument risk calculated under the simplified approach;
  - d) specific debt instrument risk calculated under the basic approach;
  - e) general debt instrument risk calculated under the duration-based approach;
  - f) other risks other than delta risk (non-delta risk) calculated under the scenario approach for options for which the Bank uses its own valuation models, and under the delta plus approach for other options;
- 4) other risks:
  - a) settlement/delivery risk calculated under the approach specified in Title V, Part III of the CRR;
  - b) counterparty credit risk calculated using the mark-to-market method specified in Chapter 6, Title II, Part III of the CRR;
  - c) credit valuation adjustment risk (CVA) calculated under the approach specified in Title VI, Part III of the CRR;
  - d) large exposures limit risk calculated under the approach specified in Articles 395-401 of the CRR;
  - e) for exposures to a central counterparty calculated under the approach specified in Section 9; Chapter 6; Title II, Part III of the CRR.

The total own funds requirement for the Bank's Group is the sum of the aforementioned own funds requirements for individual types or risk.

In calculating the own funds requirement for counterparty credit risk, the Bank uses contractual netting pursuant to the CRR (Articles 295-298).

Information on the own funds requirements for the Bank's Group is presented in Table 4.1.

Table 4.1. Risk weighted assets of the Bank Group [template EU OV1]

The Bank's Group			RWAs					Minimum capital requirements
			31.12.2020	30.09.2020	30.06.2020	31.03.2020	31.12.2019	31.12.2020
	1	Credit risk (excluding CCR)	184 761	193 321	195 827	202 151	195 614	14 781
Article 438 (c)(d)	2	Of which the standardised approach	184 761	193 321	195 827	202 151	195 614	14 781
Article 107 Article 438 (c)(d)	6	CCR	2 906	2 858	3 690	3 874	2 610	232
Article 438 (c)(d)	7	Of which mark to market	2 444	2 441	2 381	2 726	1 917	195
Article 438 (c)(d)	8	Of which original exposure	0	0	0	0	0	0
	9	Of which the standardised approach	0	0	0	0	0	0
	10	Of which internal model method (IMM)	0	0	0	0	0	0
Article 438 (c)(d)	11	Of which risk exposure amount for contributions to the default fund of a CCP and other exposures to the central counterparty	112	97	949	761	403	9
Article 438 (c)(d)	12	Of which CVA	350	320	360	387	290	28
Article 438 (e)	13	Settlement risk	-	-	-	-	0	-
Article 438 (e)	19	Market risk	20 383	6 192	4 957	5 111	5 241	1 631
	20	Of which the standardised approach	20 383	6 192	4 957	5 111	5 241	1 631
	21	Of which IMA	0	0	0	0	0	0
Article 438 (e)	22	Large exposures	0	0	0	0	0	0
Article 438 (f)	23	Operational risk	20 363	16 354	15 149	14 721	10 540	1 629
	24	Of which basic indicator approach	3 631	3 631	3 631	3 631	3 277	290
	25	Of which standardised approach	0	0	0	0	0	0
	26	Of which advanced measurement approach	16 732	12 723	11 518	11 090	7 263	1 339
Article 437 (2), Article 48 and Article 60	27	Amounts below the thresholds for deduction (subject to 250% risk weight)	8 998	7 266	7 437	8 295	8 375	-
Article 500	28	Floor adjustment	0	0	0	0	0	0
	29	Total	228 413	218 725	219 623	225 857	214 006	18 273

As at 31 December 2020, the own funds requirement for credit risk constituted the largest part of the total own funds requirement for the Bank's Group (82.16%) - Chart 4.1. The credit risk shown in the chart includes credit valuation adjustment risk, whereas settlement/delivery risk is presented as part of market risk.

<sup>&</sup>lt;sup>13</sup> As from 1 January 2019, the Bank introduced an extended AMA to cover the Branch in Germany in accordance with the criteria that are being developed for the allocation of the own funds requirement for operational risk under the AMA for the Branch in Germany.

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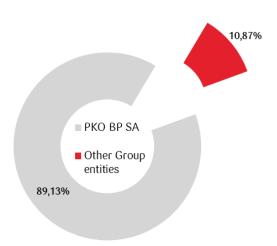


Chart 4.1. Structure of capital requirement by risk types



The own funds requirements for the Bank constituted a significant part (89.13%) of the total own funds requirement for the Bank's Group (Chart 4.2).

Chart 4.2. Structure of capital requirement by equities in the Bank and the Bank Group companies.



The Bank's Group includes the insurance companies PKO Życie Towarzystwo Ubezpieczeń S.A. and PKO Towarzystwo Ubezpieczeń S.A. which are excluded from prudential consolidation as financial entities subject to separate supervision by the PFSA which also includes the assessment of compliance with the capital requirements for insurance companies.

As at 31 December 2020, the Bank did not have any instruments which should be disclosed as non-deducted holdings in insurance companies in accordance with Article 49 of the CRR.

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# 4.1. Credit risk

The own funds requirement for credit risk and counterparty credit risk as at 31 December 2020 by exposure class is presented in Table 4.2. Table 4.2. Structure of own funds requirement for credit risk \* in Bank's Capital Group

	20	)20	2019		
Exposures to central governments or central banks	611	4,1%	553	3,5%	
Exposures to regional governments or local authorities	185	1,2%	176	1,1%	
Exposures to public sector entities	69	0,5%	68	0,4%	
Exposures to multilateral development banks	0	0,0%	0	0,0%	
Exposures to international organisations	0	0,0%	0	0,0%	
Exposures to institutions	202	1,3%	233	1,5%	
Exposures to corporates	3 855	25,7%	4 166	26,3%	
Retail exposures	3 679	24,5%	3 852	24,3%	
Exposures secured by mortgages on immovable property	4 885	32,5%	5 459	34,5%	
Exposures in default	365	2,4%	554	3,5%	
Exposures associated with particularly high risk	216	1,4%	164	1,0%	
Exposures in the form of covered bonds	0	0,0%	0	0,0%	
Items representing securitisation positions	0	0,0%	0	0,0%	
Exposures to institutions and corporates with a short-term credit assessment	0	0,0%	0	0,0%	
Exposures in the form of units or shares in collective investment undertakings ('CIUs')	0	0,0%	0	0,0%	
Equity exposures	187	1,2%	180	1,1%	
Other items	759	5,1%	453	2,7%	
Total	15 013	100,0%	15 858	100,0%	

<sup>\*</sup> includes the capital requirement for credit risk, counterparty credit risk (mark-to-market method), CVA risk and CCP risk

The Bank's Group is required to maintain the highest own funds requirement for covering the risk related to exposures secured with real estate (32.5%) and corporate exposures (25.7%), which is due to the Bank's large exposure to these segments as well as retail exposures (24.5%).

## 4.2. Market risk

In 2020 the largest share of the own funds requirement for market risk in the Bank's Group was for the requirement for foreign change risk (72%). Another type of own funds requirement which is significant in terms of its share is the capital requirement for interest rate risk (general and specific -22%) (Table 4.3.).

Table 4.3. Own funds requirement for market risk [template EU MR1]

	is som talled requirement for market lock [complete 20 Pikk]	20	20	
		a)	b)	
		RWAs	Capital requirements	
	Outright products			
1	Interest rate risk (general and specific)	4 044	324	
2	Equity risk (general and specific)	528	42	
3	Foreign exchange risk	14 582	1 167	
4	Commodity risk	0	0	
	Options			
5	Simplified approach	0	0	
6	Delta-plus method	16	1	
7	Scenario approach	1 214	97	
8	Securitisation (specific risk)	0	0	
9	Total	20 383	1 631	

The occurrence of the requirement for foreign exchange risk in the amount of PLN 1,167 million is the result of additional write-offs for legal risk related to foreign currency loans.

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As at the end of 2020, the Bank's Group did not have an open position for commodities risk, therefore, the respective own funds requirement was zero.

Due the fact that the Bank's Group does not use any internal models for calculating own funds requirements for market risk, Article 455 of the CRR "Use of Internal Market Risk Models" does not apply.

# 4.3. Operational risk

The division of the own funds requirement for operational risk according to the calculation method used is presented in Table 4.4.

Table 4.4. Capital requirement for operational risk

	The Bank Group		Other Group companies		Bank	
	2020 2019		2020	2019	2020	2019
Basic Index Approach - BIA	290	262	290	261	0,6	1
Advanced approach - AMA	1 339	581	0	0	1 339	581
Total	1 629	843	290	261	1 339	582

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#### 5. Encumbered and unencumbered assets

Information on the encumbered and unencumbered assets of the Bank's Group is presented in the tables below.

A given asset is considered encumbered if it has been pledged or is subject to any form of arrangements aimed at securing or supporting the credit rating of any on-balance sheet or off-balance sheet transaction from which it may not be withdrawn freely (e.g. in order to be pledged for financing purposes). As at 31 December 2020, the Bank's Group had encumbered assets:

- 1) in respect of sell-buy-back transactions (repos);
- 2) Treasury bonds entered in the register of mortgage covered bonds pursuant to Article 18(3a) of the Act on mortgage covered bonds and mortgage banks.

Moreover, the Bank's Group held debt securities issued in the form of mortgage covered bonds and bonds secured with mortgage loans of PLN 23 167 million and bonds of PLN 2 475 million secured with receivables under lease contracts of PLN 2 475 million.

Table 5.1. Encumbered and unencumbered assets

		2020						
		Carrying amount of encumbered assets	Fair value of encumbered assets	Carrying amount of unencumbered assets	Fair value of unencumbered assets			
		010	040	060	090			
010	Assets of the Bank Group	26 458		348 210				
030	Equity instruments	0		491				
040	Debt securities	725	342	120 190	73 643			
050	of which: covered bonds	0	0	0	0			
060	of which: asset-backed securities	0	0	0	0			
070	of which: issued by general governments	725	342	95 574	60 804			
080	of which: issued by financial corporations	0	0	21 271	10 801			
090	of which: issued by non-financial corporations	0	0	3 346	2 039			
120	Other assets	25 733		227 529				
121	of which: loans and advances other than loans on demand	25 628		198 941				
122	of which: loans on demand	105		4 660				
123	of which: other	0		23 928				

Table 5.2. Collateral received

Tubic	5.2. Collateral received	2020				
		Fair value of encumbered collateral received or own debt securities issued	Fair value of collateral received or own debt securities issued available for encumbrance			
		010	040			
241	Own covered bonds and asset-backed securities issued and not yet pledged		0			
250	TOTAL ASSETS, COLLATERAL RECEIVED AND OWN DEBT SECURITIES ISSUED	26 458				

Table 5.3. Encumbered assets/collateral received and associated liabilities

		2020				
			Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered			
		010	030			
010	Carrying amount of selected financial liabilities	19 728	26 096			
011	of which: debt securities issued	19 681	26 054			
012	of which: repurchase agreements	47	43			

Repos and sell-buy-back transactions are conditional transactions which result in encumbering assets transferred to counterparties as collateral for loans. Such transactions are normally used by the Bank under the business model used for managing liquidity on the financial markets and for servicing the transactional needs of the financial institutions which are the Bank's counterparties. The collateral transferred in respect of the current valuations contained in derivative transactions constitutes a standard mechanism for securing the Bank's credit exposure resulting from the collateral agreements concluded and, as such, forms part of the Bank's business model related to transactional activity on the financial markets.

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## 6. Capital buffers

Pursuant to the CRR and the Act on macroprudential supervision, financial institutions are required to maintain a combined buffer requirement above the minimum levels set out in the CRR for:

- 1) total capital ratio (TCR);
- 2) Tier 1 capital ratio (T1);
- 3) Common Equity Tier 1 capital ratio (CET1).

The combined buffer requirement is the total of all the applicable buffers, i.e. the capital conservation buffer, countercyclical buffer, systemic risk buffer, and Other Systemically Important Institution (O-SII) buffer. These buffers must be covered with Common Equity Tier 1 capital.

The capital conservation buffer is applicable to all banks

The countercyclical buffer is imposed to mitigate the systemic risk arising from the lending cycle. It is introduced by the minister responsible for financial institutions during periods of an excessive increase in lending activities and lifted when they slow down. As at 31 December 2020, the countercyclical buffer rate was 0% for credit exposures in Poland.

Additionally, the Bank's Group calculates a countercyclical buffer rate specific to a given institution, taking into account the value of all credit exposures in other countries and the respective value of the countercyclical buffer for those countries in its calculations. As at 31 December 2020, the countercyclical buffer specific to the Bank's Group was 0.01%.

Tables 6.1. and 6.2. present information on the geographical distribution of the relevant credit exposures and the amount of the countercyclical buffer specific to the Bank's Group.



Table 6.1. Geographical distribution of credit exposures relevant for the calculation of the Bank's Group countercyclical capital buffer \*

		2020											
		General credit expo	sures	Tradind book expo	sures	Securitisation expo	osure	Own funds require	ments				
		Exposure value for SA	Exposure value for IRB approach	Sum of long and short positions of trading book exposures for SA	Value of trading book exposures for the IMA	Exposure value for SA	Exposure value for IRB approach	of which: General credit exposures	of which: Trading book exposures	of which: Securitisation exposures	Total	Own funds requirements weights	Countercyclical buffer rate
		010	020	030	040	050	060	070	080	090	100	110	120
010	Breakdown by country												
1	Poland	242 322	!	2 295	;	0	C	13 304	173	3	0 13 477	0,957922	0,0
2	Luxembourg	2 191		0	(	) (	C	175	5 (	)	0 175	0,011851	0,00
3	Ukraine	2 086	5	0	) (	) (	C	133	3 (	)	0 133	0,009015	0,0
4	Sweden	868	3	0	(	) (	C	69	) (	)	0 69	0,004647	0,00
5	Germany	711		0	) (	) (	C	56	5 (	)	0 56	0,003851	0,0
6	Spain	607		0	) (	) (	C	49	) (	)	0 49	0,003535	0,0
7	Norway	435	;	0	)	) (	C	34	. (	)	0 34	0,002316	0,00
8	Hungary	293	,	0	)	) (	C	23	3 (	)	0 23	0,001579	0,00
9	Bahamas	225	;	0	)	) (	C	18	3 (	)	0 18	0,001270	0,00
10	Czech Republic	211		0	) (	) (	C	17	, (		0 17	0,001138	0,00
11	The Netherlands	133		0	) (	) (	C	9	) (	)	0 9	0,000620	0,0
12	Switzerland	93		0	) (	) (	C	8	3 (	)	0 0	0,000517	0,0
13	France	67		0	) (	) (	C	5	5 (	)	0 5	0,000331	0,0
14	United Kingdom	57		0	)	) (	C	5	5 (	)	0 5	0,000292	0,0
15	Сургиѕ	52		0	)	) (	C	4	. (	)	0 4	0,000308	0,0
16	Livery	45	5	0		) (	C	4	. (		0 4	0,000238	0,00
17	Finland	35	5	0	(	) (	C	3	3	)	0 3	0,000188	0,00
18	United States	26	5	0	(	0	C	1	(	)	0 1	0,000072	
19	Malta	7		0	(	) (	C	1		)	0 1	0,000114	0,00
20	Estonia	5	5	0	(	) (	C	C		)	0 (	0,000088	0,00
21	Ireland	4		0	(	) (	C	C		)	0 (	0,000033	
22	Belgium	2		0	(	) (	C	C		)	0 (	0,000016	
23	Italy	2		0	(	) (	C	C		)	0 (	0,000010	0,00
24	Australia	1		0	(	) (	C	C	) (	)	0 (	0,000006	0,0
25	Ecuador	1		0	) (	) (	C	C	) (	)	0 0	0,000006	
26	South Korea	1		0 0	) (	) (	C	C	) (	)	0 (	0,000005	



27	Denmark	1	0	0	0	0	0	0	0	0	0	0,000003	0,00
28	Central African Republic	0	0	0	0	0	0	0	0	0	0	0,000001	0,00
29	Belarus	0	0	0	0	0	0	0	0	0	0	0,000002	0,00
30	Latvia	0	0	0	0	0	0	0	0	0	0	0,000003	0,00
31	Russia	0	0	0	0	0	0	0	0	0	0	0,000002	0,00
32	Bulgaria	0	0	0	0	0	0	0	0	0	0	0,000002	0,00
33	Canada	0	0	0	0	0	0	0	0	0	0	0,000002	0,00
34	Austria	0	0	0	0	0	0	0	0	0	0	0,000001	0,00
35	Greece	0	0	0	0	0	0	0	0	0	0	0,000001	0,00
36	United Arab Emirates	0	0	0	0	0	0	0	0	0	0	0,000001	0,00
37	Portugal	0	0	0	0	0	0	0	0	0	0	0,000002	0,00
38	Georgia	0	0	0	0	0	0	0	0	0	0	0,000001	0,00
39	Columbia	0	0	0	0	0	0	0	0	0	0	0,000000	0,00
40	Kazakhstan	0	0	0	0	0	0	0	0	0	0	0,000000	0,00
41	Iceland	0	0	0	0	0	0	0	0	0	0	0,000001	0,00
42	Brazil	0	0	0	0	0	0	0	0	0	0	0,000000	0,00
43	Romania	0	0	0	0	0	0	0	0	0	0	0,000002	0,00
44	Hong Kong	0	0	0	0	0	0	0	0	0	0	0,000002	0,00
45	Moldova	0	0	0	0	0	0	0	0	0	0	0,000001	0,00
46	Singapore	0	0	0	0	0	0	0	0	0	0	0,000001	0,00

<sup>\*</sup> Exposure value under the standardized approach equal to 0 is due to the rounading and does not mean lack of exposure to a country

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Table 6.2. Countercyclical capital buffer specific for the Bank Group

		2020	2019
010	Total risk exposure amount	228 413	214 006
020	Institution specific countercyclical capital buffer rate	0,01%	0,01%
030	Institution specific countercyclical capital buffer rate requirement	14	18

The systemic risk buffer is used to prevent and mitigate a long-term non-cyclical risk or macroprudential risk which may cause severe negative consequences for the financial system and the economy of a given country. Pursuant to the Regulation of the Minister of Development and Finance repealing the Regulation on the systemic risk buffer, as from 18 March 2020 the systemic risk buffer for exposures in the territory of Poland is inapplicable.

The Other Systemically Important Institution (O-SII) buffer is an additional requirement for institutions which may generate systemic risk. The Bank was identified as an other systemically important institution based on the PFSA's decision of 10 October 2016. In 2020, the PFSA maintained the level of the Other Systemically Important Institution (O-SII) buffer for the Bank, applicable in 2019, at an amount equivalent to 1% of the total risk exposure amount calculated in accordance with Article 92(3) of the CRR. The buffer must be maintained both on an individual and consolidated basis.

### 7. Leverage

The Bank's Group calculates the leverage ratio as one of the capital adequacy measures.

The objective of leverage risk management is to ensure a proper relationship between the amount of Tier 1 capital and the total balance sheet assets and off-balance sheet liabilities granted of the Bank and the Bank's Group. The method of leverage risk management is governed in the Bank's internal regulations. The Banking Risk Division (the Capital Adequacy and Operational Risk Department) and the Accounting and Reporting Department are responsible for assessing leverage risk.

The identification of leverage risk consists of recognizing the current and potential risk sources and factors and determining its potential impact on the activities of the Bank and the Bank's Group. For the purposes of measuring leverage risk, a leverage ratio is expressed as a percentage calculated as the Tier 1 capital measure divided by the total exposure measure. As at 31 December 2020, a leverage ratio was calculated by reference to the transitional definition of Tier 1 capital (within the meaning of the transitional arrangements for mitigating the impact of the introduction of IFRS 9 on own funds). The Bank's Group also discloses (in chapter 7 of this Report) the value the leverage ratio would have if the transitional arrangements regarding IFRS 9 were not applied.

In order to maintain the leverage ratio at an acceptable level, a strategic tolerance limit and a threshold are set, whose levels are regularly monitored and verified at least once a year. Leverage risk is considered low, when the leverage ratio is equal to or higher than the threshold; it is considered increased, when the leverage ratio is below the threshold and is equal to or higher than the strategic tolerance limit; and it is considered high, when the leverage ratio is below the strategic tolerance limit.

The leverage ratio is calculated and reported on a regular basis. In the event of a high or increased leverage risk, management activities are suggested, taking into account the current macroeconomic situation and the costs related to the activities suggested. The impact of the recommended management activities on the level of leverage risk is determined. The leverage ratio is forecasted during the financial planning process and takes into account the planned changes in the activities of the Bank and the Bank's Group as well as the impact of the asset structure on its level. The Bank has a list of potential tools to be used in case it needs to increase Tier 1 capital or to adjust the structure of on-balance sheet and off-balance exposures (the denominator of the leverage ratio).

In 2020, the leverage ratio remained above the internal and external limits as well as above the minimum levels recommended by the PFSA.



Table 7.1. Reconciliation of the assets disclosed in the audited financial statements and the exposures to the leverage ratio calculation [template LRSum]

			Leverage ratio exposures as in Capital Requirements Regulation			
		2020	2019			
1	Total assets as per published financial statements	376 966	348 044			
2	Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation	-2 298	-2 624			
4	Adjustments for derivative financial instruments	2 699	2 581			
5	Adjustments for securities financing transactions (SFTs)	7	7			
6	Adjustment for off-balance sheet items (i.e. conversion to credit equivalent amounts of off-balance sheet exposures)	22 619	18 374			
7	Other adjustments	-5 525	-1 764			
8	Total leverage ratio exposure	394 468	364 618			

Table 7.2. Leverage ratio. Exposure for the purpose of calculating the leverage ratio within the meaning of the CRR [template LRCom]

		CRR leverage r	atio exposures
		2020	2019
On-bala	nce sheet exposures (excluding derivatives and SFTs)		
1	On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral)	371 481	345 932
2	(Asset amounts deducted in determining Tier 1 capital)	-3 043	-3 144
3	Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets) (sum of lines 1 and 2)	368 437	342 788
Derivat	ve exposures		
4	Replacement cost associated with all derivatives transactions (ie net of eligible cash variation margin)	1 098	1 242
5	Add-on amounts for PFE associated with all derivatives transactions (mark- to-market method)	2 699	2 581
7	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	-408	-421
11	Total derivatives exposures (sum of lines 4 to 10)	3 389	3 402
SFT exp	osures		
12	Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	15	47
14	Counterparty credit risk exposure for SFT assets	7	7
16	Total securities financing transaction exposures (sum of lines 12 to 15a)	22	54
Other o	ff-balance sheet exposures		
17	Off-balance sheet exposures at gross notional amount	72 651	66 749
18	(Adjustments for conversion to credit equivalent amounts)	-50 031	-48 375
19	Other off-balance sheet exposures (sum of lines 17 and 18)	22 619	18 374
Capital	and total exposure mesure		
20	Tier 1 capital	38 817	36 718
21	Leverage ratio total exposure measure (sum of lines 3, 11, 16, 19, EU-19a and EU-19b)	394 468	364 618
Leveraç	e ratio		
22	Leverage ratio	9,84%	10,07%
Choice	on transitional arrangements and amount of derecognised fiduciary items		
EU-23	Choice on transitional arrangements for the definition of the capital measure	Transitional	Transitional
EU-24	Amount of derecognised fiduciary items in accordance with Article 429(11) of Regulation (EU) No 575/2013	0	0

Table 7.3. On balance sheet exposures  $^{\star}$  [template LRSpl]

		CRR leverage (	ratio exposures
		2020	2019
EU-1	Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures), of which:	371 481	345 932
EU-2	Trading book exposures	7 616	10 144
EU-3	Banking book exposures, of which:	363 865	335 788
EU-4	Covered bonds	0	0
EU-5	Exposures treated as sovereigns	95 711	74 970
EU-6	Exposures to regional governments, MDB, international organisations and PSE not treated as sovereigns	13 613	11 885
EU-7	Institutions	1 132	3 117
EU-8	Secured by mortgages of immovable properties	105 861	105 396
EU-9	Retail exposures	64 519	68 603
EU-10	Corporate	55 526	47 330
EU-11	Exposures in default	3 888	5 740
EU-12	Other exposures (eg equity, securitisations, and other non-credit obligation assets)	23 614	18 746

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<sup>\*</sup> On-balance sheet exposures for the leverage ratio calculation purposes within the meaning of the CRR (excluding derivatives and securities financing transactions)

In 2020, strategic decisions had an indirect impact on the leverage ratio.

The factors affecting the leverage ratio:

- 1) increase in exposure as a result of:
  - a) an increase in the value of loans and advances to customers;
  - b) an increase in the value of Treasury bonds;
- 2) a change in own funds as a result of the recognition of the Bank's profit for 2019 and due to the recognition of the losses for 2020 in the funds

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## 8. Internal capital (Pillar 2)

In 2020, the Bank's Group determined its internal capital in accordance with:

- 1) the CRR;
- 2) the Bankina Law:
- 3) the Regulation of the Minister of Development and Finance of 6 March 2017 on the risk management system and the internal control system, the remuneration policy and detailed method of estimating internal capital at banks;
- 4) the Act on macroprudential supervision,

and the internal regulations of the Bank and the Bank's Group.

Internal capital is the amount of capital required to cover all the identified material types of risk which occur in the business activities of the Bank and the Bank's Group and the effect of changes in the business environment, taking into account the expected risk level.

The objective of estimating internal capital is to maintain own funds at the level specified in the Strategy, ensuring the safety of the activities, taking into account changes in the profile and scale of the activities and unfavourable stress conditions and to enable more effective management of the Bank and the Bank's Group oriented towards improving the profitability of the operations and the return on capital invested.

For each risk considered material, the Bank's Group develops and uses appropriate methods for its assessment and measurement. The Bank monitors the materiality of individual risk types related to the business activities of the Bank and the Bank's Group on a regular basis. The internal capital to cover individual risk types is determined in accordance with the methods specified in the internal regulations.

The total internal capital of the Bank's Group is the total of the internal capital required to cover all the material risk types to which the Bank and the Bank's Group, including the entities subject to prudential consolidation, are exposed. The ratio of correlation between the individual risk types and the individual entities in the Bank's Group, used to calculate internal capital, is 1.

The internal capital to cover the Bank's credit default risk is determined as the value of the own funds requirement for credit risk estimated using the IRB approach and the standardized approach to calculating the capital requirement for credit risk, set out in the CRR. The internal capital to cover the Bank's credit default risk is determined for on-balance and off-balance sheet exposures subject to credit risk. The entities in the Bank's Group in which credit risk is material determine the internal capital for credit risk on the basis of the value of the own funds requirement for credit risk. The total internal capital to cover credit default risk is the total of the internal capital determined for separate exposure portfolios and the entities in the Bank's Group in which the internal capital for credit risk is estimated.

The internal capital to cover the risk of foreign currency mortgage loans in the Bank is estimated on the basis of the value of projected losses due to the resolution of customer disputes in court and the related losses already included in the Bank's results

The internal capital for interest rate risk is calculated using the Value-at-Risk method, taking into account the results of stress tests, interest income sensitivity and the adopted limits and thresholds for interest rate risk. The internal capital for foreign exchange risk is calculated using the Value-at-Risk method, taking into account the results of stress tests.

The internal capital to cover the interest rate risk and foreign exchange risk of the Bank's Group is calculated using a method similar to that used for the Bank, taking into account the specific nature of the entities for which the internal capital is calculated.

The internal capital to cover liquidity risk includes the total estimated cost of liquidating a portfolio of securities quickly in order to cover stress-test outflows and the cost of obtaining additional funds to finance the amount of liquid assets necessary to meet the level of liquid assets required at the Bank. The total internal capital for the liquidity risk of the Bank's Group is the total of the internal capital of the Bank and the entities in the Bank's Group for which liquidity risk was considered material. The internal capital for the entities in the Bank's Group is calculated using a method similar to that used for the Bank, taking into account their specific nature.

The internal capital to cover the Bank's operational risk is equal to the level of the Bank's operational risk calculated using the AMA and the BIA. The internal capital to cover the operational risk of the entities in the Bank's Group is adopted for the entities in the Bank's Group subject to prudential consolidation, which assessed operational risk as being material – at the amount of the capital estimated by those entities.

The internal capital to cover the Bank's business risk is determined on the basis of the analysis of the historical volatility of deviations of the actual net business revenue from the forecasted amounts, in accordance with the Earnings at Risk concept, and a qualitative assessment of business risk.

The internal capital to cover the business risk of the entities in the Bank's Group is adopted for the entities in the Bank's Group which assessed business risk as being material. The internal capital to cover the business risk of the Bank's Group is determined as the total of the Bank's internal capital and the internal capitals of the entities in the Bank's Group.

The Bank and the Group entities in which macroeconomic risk is material determine the internal capital to cover macroeconomic risk on the basis of the results of comprehensive stress tests. It is equal to the arithmetic mean of the amounts of the total own funds requirement under a shock scenario which cause a decrease in the total capital ratio (TCR) below the level resulting from the base scenario, calculated for four consecutive quarters.

The internal capital to cover the model risk of the Bank and the entities in the Bank's Group is determined on the basis of a ratio specifying the amount of the internal capital to cover model risk, depending on the model risk level.

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## 9. Capital adequacy

Capital adequacy is a process aimed at ensuring that the level of the risk which the Bank and the Bank's Group take on in connection with the development of their business activities may be covered with the available capital, taking into account a specific risk tolerance level and time horizon. The capital adequacy management process covers, in particular, complying with the applicable regulations of the supervisory and control authorities, as well as the risk tolerance level defined in the Bank and the Bank's Group and the capital planning process, including the policu for raising capital.

The basic regulations applicable in the capital adequacy assessment process are:

- 1) the Banking Law;
- 2) the CRR;
- 3) the Act on macroprudential supervision;
- 4) the Regulation of the Minister of Development and Finance of 6 March 2017 on the risk management system and the internal control system, the remuneration policy and a detailed method of estimating internal capital at banks.

The objective of capital adequacy management is to maintain a level of own funds which is adequate to the scale and risk profile of the activities of the Bank and the Bank's Group on an ongoing basis.

Managing the capital adequacy of the Bank's Group includes:

- 1) defining and pursuing the capital objectives desired by the Bank;
- 2) identifying and monitoring material risk types;
- 3) measuring or estimating the internal capital to cover individual risk types and the total internal capital;
- 4) establishing internal capital adequacy limits;
- 5) forecasting, monitoring and reporting the level and structure of equity and capital adequacy;
- 6) managing the balance sheet structure in order to optimize the quality of the Bank's own funds;
- 7) capital emergency measures;
- 8) stress tests:
- 9) planning and allocating the own funds requirement and internal capital to the business areas and customer segments at the Bank and to the individual entities in the Bank's Group;
- 10) assessing the profitability of the business areas and customer segments.

The capital adequacy measures are as follows:

- 1) total capital ratio (TCR);
- 2) Tier 1 capital ratio (T1);
- 3) Common Equity Tier 1 capital ratio (CET1);
- 4) own funds to internal capital ratio;
- 5) leverage ratio;
- 6) MREL in relation to own funds and total liabilities.

The objective of monitoring the level of capital adequacy measures is to determine the degree of compliance with supervisory standards and to identify cases which require initiating capital emergency measures or a capital protection plan.

Pursuant to Article 92 of the CRR, the minimum capital ratio levels maintained by the Bank's Group are:

- 1) total capital ratio (TCR) 8.0%;
- 2) Tier 1 capital ratio (T1) 6.0%;
- 3) Common Equity Tier 1 capital ratio (CET1) 4.5%.

Pursuant to the CRR and the Act on macroprudential supervision, the Bank's Group is required to maintain a combined buffer requirement which is the total of the applicable buffers. Detailed information on capital buffers is presented in chapter 6 of this Report.

Moreover, the Bank and the Bank's Group are obliged to maintain own funds to cover an additional capital requirement concerning the risk arising from mortgage-secured foreign currency loans and advances to households, the so-called add-on:

- 1) for a total capital ratio: 0.40% for the Bank and 0.36% for the Bank's Group;
- 2) for a Tier 1 capital ratio: 0.30% for the Bank and 0.27% for the Bank's Group, and
- 3) for a Common Equity Tier 1 capital ratio: 0.23% for the Bank and 0.20% for the Bank's Group.

Additionally, the Bank and the Group are required to maintain own funds to cover an additional capital requirement in order to hedge the risk arising from regulatory charges, i.e. a capital conservation buffer (2.5%), specific countercyclical buffer (0.01%), the OSII buffer imposed on the Bank (1%), and an individual add-on in respect of the risk of foreign currency mortgage loans for each ratio for the Bank and for the Group.

Therefore, as at 31.12.2020 the capital ratios should be no lower than:

- 1) TCR 11.78% for the Bank and 11.75% for the Group;
- 2) T1 9.71% for the Bank and 9.69% for the Group;
- 3) CET1 8.16% for the Bank and 8.15% for the Group.

Moreover, on 20 October 2020 the Group received a letter from the Bank Guarantee Fund concerning a plan to reach the minimum requirement for own funds and liabilities subject to write-down or conversion (MREL). The amount of MREL determined for the Bank at the consolidated level is 12.65% of the total liabilities and own funds ("TLOF"), which corresponds to 20.12% of the total risk exposure amount ("TRE"). This requirement should be met by 1 January 2024.

The Bank meets the PFSA's requirements for minimum capital ratios.

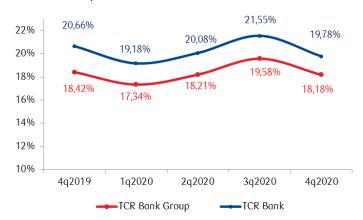
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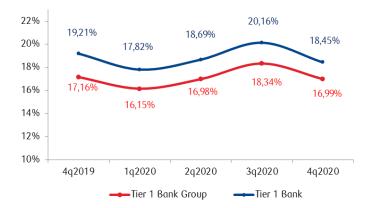
In 2020 and 2019, the Bank's Group maintained a safe capital base, above the supervisory and regulatory limits.

The chart below presents changes in the total capital ratio of the Bank and the Bank's Group.

Chart 9.1. Total capital ratio.



The chart below presents changes in the Tier 1 capital ratio (Common Equity Tier 1 capital ratio)<sup>14</sup> of the Bank and the Bank's Group. Chart 9.2. Tier I capital ratio (T1)/common equity Tier I (CET 1) capital ratio.



In 2020, the values of capital adequacy measures remained above the internal and external limits.

## 9.1. Impact of IFRS 9 on capital adequacy

On 1 January 2018, IFRS 9 "Financial Instruments", which replaced IAS 39 "Financial Instruments", entered into force. Changes were made to the classification and measurement of financial instruments, recognition and calculation of their impairment, and hedge accounting.

The impact of the implementation of IFRS 9 on own funds and capital adequacy measures is governed in Regulation 2017/2395<sup>15</sup> of the European Parliament and of the Council. According to this regulation, banks may apply transitional provisions as regards own funds and increase Common Equity Tier 1 capital related to the implementation of the new impairment model over the next 5 years as from 1 January 2018, with the scaling factor decreasing from period to period.

Moreover, on 27 June 2020 Regulation 2020/873<sup>16</sup> of the European Parliament and of the Council entered into force. This provision makes it possible to mitigate the effect of the impairment losses recognized as from 1 January 2020 on Tier 1 capital. Such arrangement may be used until 2024 inclusive, with the scaling factor assigned to this value decreasing from period to period.

In the light of Article 473a (7a) of the CRR introduced by means of the above Regulation, the Bank decided to use the option according to which the adjustment mitigating the effect of the introduction of IFRS 9 on own funds is assigned a 100% risk weight, and the value obtained is added to the total exposure measure. For the data for December 2019, a scaling factor for adjusting the specific risk for which the exposure value is reduced, calculated in accordance with the provisions of Article 473a (7b) of the CRR, was used.

<sup>&</sup>lt;sup>14</sup> The Tier 1 capital ratio and the Common Equity Tier 1 capital ratio of the Bank and the Bank's Group are equal.

<sup>&</sup>lt;sup>15</sup> Regulation (EU) 2017/2395 of the European Parliament and of the Council of 12 December 2017 amending Regulation (EU) No 575/2013 as regards transitional arrangements for mitigating the impact of the introduction of IFRS 9 on own funds and for the large exposures treatment of certain public sector exposures denominated in the domestic currency of any Member State.

<sup>&</sup>lt;sup>16</sup> Regulation 2020/873 of the European Parliament and of the Council of 24 June 2020 amending Regulations (EU) No 575/2013 and (EU) 2019/876 as regards certain adjustments in response to the COVID-19 pandemic.

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The Bank's Group decided to apply the transitional provisions in full and to spread the impact of the adjustments for the implementation of IFRS 9 on own funds and capital adequacy measures over time.

Table 9.1. Comparison of the institution's own funds as well as the capital ratio and the financial leverage ratio, taking into account and without taking into account the application of transitional arrangements concerning IFRS 9 and similar expected credit losses [IFRS 9-FL.]

		31.12.2020	30.09.2020	30.06.2020	31.03.2020	31.12.2019
Availa	able capital (amounts)					
1	Common Equity Tier 1 (CET1) capital	38 816	40 120	37 293	36 473	36 717
2	Common Equity Tier 1 (CET1) capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	37 164	39 355	36 445	35 625	35 687
3	Tier 1 capital	38 816	40 120	37 293	36 473	36 717
4	Tier 1 capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	37 164	39 355	36 445	35 625	35 687
5	Total capital	41 516	42 820	39 993	39 173	39 417
6	Total capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	39 864	42 055	39 145	38 325	38 387
Risk-	weighted assets (amounts)					
7	Total risk-weighted assets	228 413	218 725	219 623	225 857	214 006
8	Total risk-weighted assets as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	226 767	217 960	218 775	225 081	213 152
	Capital ratios					
9	Common Equity Tier 1 (as a percentage of risk exposure amount)	16,99%	18,34%	16,98%	16,15%	17,16%
10	Common Equity Tier 1 (as a percentage of risk exposure amount) as if IFRS 9 or analogous ECts transitional arrangements had not been applied	16,39%	18,06%	16,66%	15,83%	16,74%
11	Tier 1 (as a percentage of risk exposure amount)	16,99%	18,34%	16,98%	16,15%	17,16%
12	Tier 1 (as a percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	16,39%	18,06%	16,66%	15,83%	16,74%
13	Total capital (as a percentage of risk exposure amount)	18,18%	19,58%	18,21%	17,34%	18,42%
14	Total capital (as a percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	17,58%	19,29%	17,89%	17,03%	18,01%
Lever	age ratio					
15	Leverage ratio total exposure measure	394 468	395 233	392 894	376 535	364 618
16	Leverage ratio	9,84%	10,15%	9,49%	9,69%	10,07%
17	Leverage ratio as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	9,46%	9,98%	9,30%	9,48%	9,81%

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## 10. Remuneration policy

The Policy for remunerating the Employees of the Bank and the PKO BP Group (the Policy) adopted by resolution of the Bank's Management Board No. 221/C/2020 and approved by resolution of the Supervisory Board No. 41/2020 of 21 May 2020 is the basic internal regulation on the remuneration policy.

The Policy ensures a consistent remuneration system by:

- 1) using a remuneration system in line with market trends;
- 2) recruiting optimal job candidates;
- 3) tailoring the mechanisms of remuneration tools and levels to the strategy and objectives of the Bank and the Bank's Group;
- 4) taking into account the capabilities of the Bank's Group in shaping the desired remuneration mechanisms and levels;
- 5) shaping fixed pay based on the evaluation of job positions;
- 6) shaping the remuneration structure based on the employees' performance and the assessment of their competences;
- 7) building the employees' responsibility for the tasks they carry out, on the basis of objectivized criteria;
- 8) guaranteeing that variable remuneration components are parameterized so that they take into account the cost of risk, the cost of capital and liquidity risk of the Bank and the Bank's Group in the long-term;
- 9) ensuring that the monetary or non-monetary forms of remuneration do not encourage the persons involved to favour their own interests or the interests of the Bank and the entities in the Bank's Group to the detriment of customers.

The Collective Bargaining Agreement concluded on 28 March 1994 (as amended) with trade union organizations forms the basis for awarding the following remuneration components to the Bank's employees:

- 1) base remuneration:
- 2) additional remuneration for working overtime and under conditions which are particularly onerous and detrimental to health;
- 3) bonuses and rewards for special career achievements.

The base remuneration and additional benefits provided to the employees are shaped on the basis of the evaluation of job positions (grading categories assigned to individual positions) and the analysis of market remuneration in the banking sector.

The Bank's remuneration policy is consistent with the principles of sound and effective risk management, which is confirmed annually by way of an assessment carried out in cooperation with an external advisor with a view to assessing the achievement of the policy's objectives, in particular a long-term increase in shareholder value and the stability of the Bank's operations. The policy does not encourage excessive risk taking and, given the Bank's financial position, it is balanced. It supports the pursuit of the Bank's strategic objectives and its long-term development. The above assessment was included in the Draft Report "Assessment of the Functioning of the Remuneration Policy at PKO Bank Polski S.A. in 2020" which will be presented to the Appointments and Remuneration Committee of the Supervisory Board of PKO Bank Polski.

In 2020, changes were made to the Policy for Remunerating the Employees of the Bank and the PKO BP S.A. Group:

which allow, in the event of extraordinary and unforeseen circumstances that require taking a conservative approach to variable remuneration, the following to be changed temporarily:

- a) the proportion of deferred variable remuneration to non-deferred variable remuneration in favour of increasing the deferred variable remuneration;
- b) extending the periods of deferral of the payment of variable remuneration and the dates as of which:
- the base value of variable remuneration is converted into the value of financial instruments;
- · the value of financial instruments will constitute the basis for converting a financial instrument into cash to be paid out,
- c) the proportion of variable remuneration in cash to variable remuneration in the form of a financial instrument in favour of increasing the variable remuneration in the form of a financial instrument.

## 10.1. Variable components of the remuneration of the Management Board members and key managers with a high impact on the Bank's risk profile (Material Risk Takers – MRTs)

In accordance with the requirements of CRD IV and Regulation No 604/2014 of 4 March 2014<sup>17</sup> and the Regulation of the Minister of Development and Finance of 6 March 2017 on the risk management system and the internal control system, the remuneration policy and a detailed method of estimating internal capital at banks (Journal of Laws of 2017, item 637), the Bank updates the rules for determining variable remuneration components (bonuses and rewards) implemented in 2012 for MRTs on a current basis, through the resolutions of:

- 1) the Supervisory Board on the "Policy of remunerating the Employees of the Bank and the PKO Bank Polski S.A. Group" and on the "Rules of employing and remunerating the members of the Management Board";
- the Management Board on the "Rules of remunerating the employees whose activities have a material impact on the Bank's risk profile Material Risk Takers at the Bank".

A list of the MRTs who are not members of the Management Board is drawn up by the Management Board based on qualitative and quantitative criteria for determining the categories of employees whose professional activities have a material impact on the risk profile, listed in Regulation 604/2014. On the basis of the aforementioned criteria, MRTs are, in particular:

- 1) senior management executives responsible for material business units, for managing specific risk categories and for control functions;
- 2) positions responsible for providing internal support, which are decisive to conducting the operations by exposing the Bank to a material operational risk and other types of risk;
- 3) positions generating credit risk and market risk, identified using criteria based on competence limits;

<sup>&</sup>lt;sup>17</sup> Commission Delegated Regulation (EU) No 604/2014 of 4 March 2014 supplementing Directive 2013/36/EU of the European Parliament and of the Council with regard to regulatory technical standards with respect to qualitative and appropriate quantitative criteria to identify categories of staff whose professional activities have a material impact on an institution's risk profile (RTS).

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- 4) positions in which the employees have received total remuneration that exceeds the relevant threshold defined in the regulations (provided that the employees do, in fact, have a material impact on the risk profile);
- 5) positions in which the employees are in the same remuneration bracket as senior management executives and persons taking operational risk (provided that they have a material impact on the risk profile).

In 2020, in selected companies in the PKO Bank Polski S.A. Group, variable remuneration components are also awarded to Material Risk Takers whose professional activities have a material impact on a company's risk profile. The rules on variable remuneration components for MRTs – Management Board members – were in force at: PKO Bank Hipoteczny S.A., PKO BP Bankowy PTE S.A., PKO TFI S.A., PKO Leasing S.A., PKO Towarzystwo Ubezpieczeń S.A. and Prime Car Management S.A. Furthermore, in: PKO Bank Hipoteczny S.A., PKO Towarzystwo Ubezpieczeń S.A. and PKO Życie Towarzystwo Ubezpieczeń S.A., PKO Leasing S.A. the rules on variable remuneration components addressed to MRTs applied to employees in selected managerial positions, and in PKO TFI S.A. – selected employees whose tasks include activities which have a material impact on the company's risk profile or the investment funds managed by the company.

#### 10.1.1. Process of determination of the policy on variable remuneration components for MRTs

The Bank's internal regulations regarding variable remuneration components were updated with the participation of experts and management executives of the Bank from the Personnel and Effectiveness Management Department (the rules for granting bonuses and rewards), Personnel Affairs Department (labour law), the Planning and Controlling Department (planning, setting and accounting for the achievement of financial objectives), the Compliance Department (compliance), and the Banking Risk Division (risk).

In preparing the first draft of the Policy, the Bank used the services of an external consultant, the consulting firm PwC Poland. In updating the Policy next time, the Bank was supported by the consulting firm EY Poland. At present, the Policy is assessed and modified by the Supervisory Board based on the recommendations of the Management Board and using the opinions of the Appointments and Remuneration Committee and the Risk Committee.

#### 10.1.2. Appointments and Remuneration Committee of the Supervisory Board (SBARC)

The SBARC functions to support the Supervisory Board in the performance of its statutory duties and tasks arising from legal regulations. The SBARC is composed of the members of the Bank's Supervisory Board (Table 10.1).

Table 10.1. Members of the Bank's Supervisory Board making up the SBARC

2020						
Name	Function					
Zbigniew Hajłasz	Chairman of the Committee					
Marcin Izdebski	Vice-Chairman of the Committee					
Grażyna Ciurzyńska	Committee Member					
Wojciech Jasiński	Committee Member					
Andrzej Kisielewicz	Committee Member					
Piotr Sadownik	Chairman of the Committee until August 26, 2020					
Elżbieta Mączyńska-Ziemacka	Committee Member until August 26, 2020					

The SBARC gives opinions on the Policy of remunerating Management Board members and MRTs in the Internal Audit Department, Legal Department, Compliance Department, and in Personnel Management Division and Banking Risk Division.

In particular, the SBARC is responsible for carrying out the following tasks:

- 1) reviewing the policy of remunerating persons holding managerial positions at the Bank on a periodical basis and presenting the results of the review to the Supervisory Board;
- 2) presenting suggestions concerning the rules for remunerating the members of the Management Board to the Supervisory Board;
- 3) giving opinions on the general rules of the policy of remunerating persons whose professional activities have a material impact on the Bank's risk profile, which are subject to approval by the Supervisory Board;
- 4) reading the report on the review of implementation of the remuneration policy, carried out by the Internal Audit Department;
- 5) preparing a draft report on the assessment of the functioning of the remuneration policy at the Bank, which is presented to the General Meeting by the Supervisory Board.

In 2019, a total of 7 meetings and 1 teleconference of the Appointments and Remuneration Committee of the Supervisory Board were held.

## 10.1.3. Key information on the characteristics of the system of variable remuneration components for MRTs

The Policy of remunerating the Employees of the Bank and the Bank's Group as well as the remuneration regulations in force at the companies describe the procedure for granting MRTs variable remuneration components related to their performance and deliverables, including rewards for special achievements at work and bonuses.

The variable remuneration components are awarded primarily on the basis of the bonus objectives set as part of Management by Objectives (MbO).

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The rules contained in the Policy indicate that the objectives set are to guarantee that the Bank's business cycle and the risk relating to its operations are taken into account. They may relate to, in particular, the performance of the Bank's Group, the C/I ratio of the Bank's Group, and the ROE of the Bank's Group. Moreover, MRTs' grades take into account the results of the business operations of the individual areas and the implementation of projects which support the strategy. The risk is taken into consideration both by establishing appropriate, risk-sensitive criteria for the assessment of the effectiveness of work and reducing or the absence of variable remuneration in the event of deterioration in performance, loss or deterioration in other variable ratios (including the application of the so-called malus in relation to portions of variable remuneration deferred for three years).

The criteria for assessing the achievement of objectives by an MRT, including a member of the Management Board, include, among other things:

- 1) The effect on the Bank's total capital ratio and equity so that the payment of variable remuneration does not limit the possibility of enhancing them;
- 2) the Bank's results in the area of a given person's responsibility, taking into account the entire Bank's performance.

The structure of performance indicators combines various types of KPIs, in particular quantitative and effectiveness indicators consistent with the specific nature of an organization. All performance indicators are parameterized and measurable. Due to the nature of a given managerial position, a different percentage of each objective in the overall assessment is defined by assigning weights to the aforementioned KPI types. Responsibility for long-term financial performance was used, adjusted for risk and costs with a different structure of objectives depending on the specific nature of the tasks performed. The positions responsible for control functions are assessed in terms of accomplishment of objectives which are independent of the performance of the structures being controlled.

The variable remuneration components for a given bonus assessment period (a calendar year) are awarded after accounting for the achievement of bonus objectives, in the following forms:

- 1) non-deferred in the amount of 60% of variable remuneration (in the first year after the assessment period);
- deferred in the amount of 40% of variable remuneration (in equal instalments over the next three years after the first year following the assessment period), with both non-deferred and deferred remuneration being awarded in equal parts in cash and in the form of a financial instrument, i.e. phantom shares (which are converted into cash at the updated price of the Bank's shares after the retention period, and in the case of deferred remuneration after the deferral period).

In accordance with the Remuneration Policy, if variable remuneration for a given year should exceed PLN 700 thousand, PLN 280 thousand plus 60% of the excess over PLN 700 thousand is deferred.

As a rule, 50% of each variable remuneration component for MRTs is linked to the value of phantom shares based on the Bank's share price changing over time. In accordance with legal requirements, at PKO Bank Hipoteczny S.A. financial instruments are linked to the book value of net assets, at Kredobank S.A. – the value of equity, and at PKO TFI S.A. – the value of units in investment funds.

According to the Group's remuneration policy, at PKO Bank Polski S.A. variable remuneration may not exceed 100% of the annual fixed remuneration, and in the aforementioned Bank's Group companies – 50% of the fixed remuneration.

Each accrued variable remuneration component may be reduced as a result of:

- 1) breach of employee duties;
- 2) non-compliance with legal regulations or customer service standards;
- 3) malperformance of the professional tasks assigned;
- 4) behaviour towards other employees which violates the principles of social coexistence.

The bonus amount:

- 1) for a Management Board member may be adjusted downwards or upwards by a specified rate depending on the Bank's performance specified in the annual Note of the Bank (a set of key management indicators specified for a given calendar year);
- for an MRT who is not a Management Board member may be adjusted upwards by a specified rate depending on the Bank's performance specified in the annual Note of the Bank.

In the case of the Management Board members, variable remuneration is awarded and paid on condition that the financial statements for a given assessment period are approved by the General Shareholders' Meeting. Prior to each payment of variable remuneration, the Supervisory Board may also decide, in relation to the Management Board members, and the Management Board may decide, in relation to persons holding managerial positions, to reduce the amount of funds for such remuneration proportionally, taking into account:

- 1) the effect on the Bank's total capital ratio and equity so that the payment of variable remuneration does not limit the possibility of enhancing them;
- 2) the effect on the cost of capital so that the payment of variable remuneration does not limit the possibility of maintaining an adequate capital base;
- the Bank's desired risk profile;
- 4) the Bank's financial performance with regard to its long-term development plans.

lf:

- 1) the Bank's performance has deteriorated significantly;
- 2) it has been determined that there has been a material adverse change in equity;
- 3) an MRT has violated the law or committed material errors;
- 4) the achievement and the degree of achievement of an MRT's results or objectives have been adjusted;
- 5) the performance of the structures supervised or managed by the aforementioned persons has deteriorated;
- 6) variable remuneration has been awarded on the basis of incorrect, misleading information or as a result of fraud on the part of an MRT, a malus type solution may be employed by the Supervisory Board or the Management Board, respectively to reduce the amount of deferred variable remuneration payable in the following accounting periods.

Material Risk Takers (excluding the members of the Bank's Management Board) may use the medical care and the Social Benefits Fund financed by the Bank. Material Risk Takers (including the members of the Bank's Management Board) may use the Employee Pension Scheme.

If an MRT is awarded severance pay due to being dismissed from his or her position, which is coupled with the termination of his or her employment relationship (other than the severance pay arising from the generally applicable laws), its amount reflects the assessment of the



MRT's performance over the last three years of employment, with the maximum amount of severance pay being defined in the Bank's internal regulations. A member of the Bank's Management Board is entitled to severance pay on condition that that he or she has served as a Management Board member for a period of at least twelve months before the termination of the aforementioned contract. An MRT may be awarded severance pay on condition that he or she has held an MRT position for a period of at least twelve months before the termination of his or her employment contract.

The members of the Management Board and selected MRTs are also subject to non-competition agreements which provide for the payment of compensation for refraining from undertaking employment with a competitor after the termination of employment with the Bank, for a maximum period of six months, of up to 100% of the fixed remuneration under the employment contract.

### 10.2. Variable remuneration components

In May 2020, the Bank's Management Board adopted a resolution on the payment of variable remuneration components awarded to Material Risk Takers at the Bank in 2020. In June 2020, the Supervisory Board also adopted a resolution on approving the amounts of payment of variable remuneration components to the members of the Bank's Management Board in 2020. The resolutions of the Management Board and the Supervisory Board, due to the circumstances related to the announcement of the state of the COVID-19 epidemic in Poland, bearing in mind the announcements of the EBA and the Office of the PFSA, determined, in particular:

- 1) changing the proportion of deferred variable remuneration to non-deferred variable remuneration in relation to variable remuneration for 2019 in favour of increasing the deferred variable remuneration to 60%;
- 2) changing the proportion of variable remuneration in cash to variable remuneration in the form of a financial instrument in relation to variable remuneration for 2019 in favour of increasing the variable remuneration in the form of a financial instrument to 60%;
- 3) changing the date of payment of the amount resulting from converting phantom shares into cash for the component in the form of a financial instrument of non-deferred variable remuneration for 2019 to 1 July 2021 for the Management Board and to 31 May 2021 for MRTs:
- 4) extending the periods of deferral of the payment of variable remuneration in relation to unpaid variable remuneration for the years 2016-2019 by 180 days for the Management Board for the component in the form of an instrument and by one month for MRTs for the cash component and by 6 and a half months for the component in the form of an instrument;
- 5) changing the calculation date for phantom shares to be converted into cash for the years 2016-2019.

Aggregate quantitative information on the amounts of remuneration of the Management Board members and key managers whose professional activities have a material impact on the risk profile of the PKO Bank Polski S.A. Group, subject to the policy on variable remuneration components, is presented in the table below:

Table 10.2. Aggregate quantitative information on the amount of remuneration paid in 2020 by area of activity

Areas	Amount of fixed remuneration paid in 2020 (in PLN million)	Amount of variable remuneration paid in 2020* (in PLN million)	Total (in PLN million)
Retail Market Area	2,46	1,34	3,79
Corporate and Investment Banking Area	9,71	4,12	13,83
Other areas	23,07	11,51	34,58
Subsidiaries	31,05	10,43	41,49
Total	66,29	27,40	93,70

<sup>\*</sup> excluding severance paid

Table 10.3. Aggregate quantitative information on the amount of remuneration paid in 2020 broken down into fixed and variable remuneration

				Non-deferre	ed remuneration	Deferred r	emuneration
Description	Number of persons*	Fixed remuneration (in PLN million)	Variable remuneration (in PLN million)	In the form of cash (in PLN million)	In the form of a financial instrument after conversion into cash (in PLN million)	In the form of cash (in PLN million)	In the form of a financial instrument after conversion into cash (in PLN million)
Management Board members	9	6,74	6,47	1,04	1,83	1,54	2,06
Senior management executives	15	8,45	2,97	1,84	-	1,12	-
Persons performing the internal control function	7	2,86	1,23	0,76	-	0,47	-
Other persons affecting the risk profile	43	17,19	6,30	4,48	-	1,82	-
Subsidiaries	74	31,05	10,43	5,32	1,48	1,60	2,03

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Total	148	66,29	27,40	13,43	3,32	6,55	4,10

\*as at 31.12.2020

In 2020, the deferred remuneration relating to the previous years was not reduced as part of a performance-related adjustment.

In 2020, there were no persons in the entire PKO Bank Polski S.A. Group who received total remuneration of at least EUR 1 million.

Table 10.4. Aggregate information on severance pay in 2020

	Amount of	Amount of				
Description	severance awarded in the previous years and paid in 2020 (in PLN million)	severance awarded in 2020 (in PLN million)	Number of persons receiving severance	Highest severance awarded (in PLN million)	Amount paid in 2020 (in PLN million)	Amount deferred to the following years (in PLN million)
Management Board members	-	-	-	-	-	-
Senior management executives	-	-	-	-	-	-
Persons performing the internal control function	-	-	-	-	-	-
Other persons affecting the risk profile	0,01	0,04	1	0,04	0,01	0,03
Subsidiaries	0,08	0,95	5	0,73	0,83	0,12
Total	0,08	0,99	6	0,73	0,84	0,15

In 2020, there were no persons in the PKO Bank Polski S.A. Group who received guaranteed remuneration due to being employed.

Table 10.5. Aggregate quantitative information on the amount of remuneration of variable remuneration unpaid as at 31.12.2020, awarded for the previous years

	Variable remuneration		
Description	accrued and yet unpaid (in PLN million)	In the form of cash (in PLN million)	In the form of a financial instrument - the amount of cash to be converted into a financial instrument (in PLN million)
Management Board members	9,81	2,98	6,83
Senior management executives	9,34	2,85	6,49
Persons performing the internal control function	3,28	1,01	2,28
Other persons affecting the risk profile	17,69	5,44	12,25
Subsidiaries	14,32	4,86	9,46
Total	54,44	17,14	37,30

<sup>\*</sup> the amounts provided concern employees holding MRT positions in the years 2016-2020 and do not include severance pay which remains to be paid in the following years

As at the publication date, the variable remuneration for 2020 was not yet awarded.

The quantitative data on the variable remuneration components awarded for 2020 will be published together with the information on the capital adequacy of the Bank's Group prepared for the first half of 2021.

## 10.3. Variable remuneration components for employees other than Material Risk Takers

#### 10.3.1. Bonuses

PKO Bank Polski S.A. has a bonus system in place, in which the bonus amount is linked to the level of achievement of the objectives set, consisting of four pillars:

- 1) MbO (Management by Objectives) covers managerial and expert positions in which the Bank's key objectives are pursued. MbO is a bonus dependent on the quality and degree of achievement of the objectives assigned;
- 2) PPBiz (Business Bonus Scheme) is a bonus pillar in which the bonus depends on the degree of completion of specific sales or effectiveness tasks. It is intended for positions outside the branches and regional retail branches (ROD), in which financial products are sold or other

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business activities are carried out (in particular restructuring and debt collection), including positions in formations which are the Bank's units;

- 3) SPS (Sales Bonus System) is intended for positions in retail branches in which banking products are sold;
- 4) SPW (Bonus Support System) covers other employees whose positions are not covered by the MbO, PPBiz or SPS pillars.

The employees' bonus objectives remain linked to the Bank's key management ratios taken into account in the bonus objectives set for the Bank's individual units. The cascade principle contained in the bonus rules, the compliance with which is monitored, requires assigning objectives to employees working within individual structures.

Additionally, the objectives are set in accordance with the SMART principle (S-specific, M-measurable, A-ambitious, R-realistic, T-time-bound).

#### 10.3.2. Rewards

Irrespective of the bonus system, there is a system for rewarding the Bank's employees. The Rules of Rewarding the Employees of PKO Bank Polski enables a rewards fund to be established at the Bank, to be used for:

- 1) individual discretionary rewards for the Bank's employees for outstanding performance or achievements which have produced results that are important to the Bank;
- 2) rewards for employees recommending candidates for jobs at the Bank;
- 3) activities related to the retention of employees holding important positions.

#### 10.3.3. Non-financial benefits for the Bank's employees

Additional benefits offered at the Bank and in the Bank's Group are a sign of care for broadly understood employee satisfaction. The range of the additional benefits offered is wide. It is also important for the Bank to tailor the benefits offered to its employees to labour market trends because the activities in this area are closely linked to the creation of the Bank's image as an employer. The main additional benefits provided to the employees include:

#### 10.3.3.1. Medical care

The Bank provides its employees with additional medical care to which they are entitled under various benefit packages for specific groups of positions. All employees have the opportunity to consult doctors of all specialties and have access to a wide range of diagnostic tests free of charge. The employees may also join the "Zdrowie jak w Banku" prevention programme aimed at the early detection of diseases and promoting a healthy lifestyle. As part of prevention activities at the Bank, its employees may undergo a medical check-up once a year. The employees are provided with additional materials on health care, and competitions promoting pro-health attitudes among the employees are organized in cooperation with the service provider. The employer monitors the level of provision of medical services by the provider on a current basis in order to provide its employees with the best possible access to such services.

The other Bank's Group entities (operating in Poland) provide their employees with medical care under the terms and conditions negotiated with the service provider by the Bank, based on separately concluded agreements.

#### 10.3.3.2. EPS

Since 2013 the Bank has been operating an Employee Pension Scheme (EPS) under which the employees have the opportunity to save money in the long term to supplement the pension income received from the mandatory parts of the pension system. The Bank's EPS has the form of an agreement under which the Bank makes the Base Contribution (representing 3.5% of an employee's remuneration) and an Additional Employee Contribution to the Investment Funds managed by PKO TFI S.A.

As from December 2019, the provisions of the EPS company agreement also allow the Members of the Bank's Management Board to join the EPS.

The major Bank's Group companies also provide Employee Pension Schemes to their employees.

#### 10.3.3.3. Group insurance

The employees and their family members may take the opportunity to join group life insurance offered by PKO Życie Towarzystwo Ubezpieczeń S.A., in return for payment made by the employees through the Bank.

The insurance company offers the employees the opportunity to choose one of the five options and two additional contributions. The amount of the benefits paid to the insured is dependent on the option selected.

Furthermore, PKO Życie Towarzystwo Ubezpieczeń S.A. provides its former employees with the individual continuation of insurance (IKU) up to the age of 70.

#### 10.3.3.4. Company Social Benefits Fund

In order to provide the employees with the opportunity to choose their preferred additional benefits, the employees may use a cafeteria system as part of the Social Fund (Social Benefits Fund). An employee may use the allocated funds for leisure activities, sports activities, making purchases in many stores, for cultural events, as well as other activities according to his or her preference, including covering the costs of childcare in crèches and kindergartens. The amount of the funds received under the cafeteria system depends on the gross income per person in the family.

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Some Bank's Group companies also offer their employees the opportunity to use the cafeteria system, whereas other companies provide other benefits such as Sodexo vouchers or holiday bonuses.

In addition, as part of the Social Fund, the employees may obtain housing loans, relief and social benefits as well as funds for additional campaigns related to, among other things, sport, culture, education and team building events.

#### 10.3.3.5. Other benefits

A good practice in the Bank and the other Group companies is to provide the employees with the possibility of using sports cards. In promoting a healthy lifestyle among its employees, the Bank offers them the opportunity to purchase several types of sports cards in order to provide benefits tailored to the users' needs in the best possible way and, consequently, to really support their pro-health activities.

The list of additional benefits offered at the Bank also includes offers and discounts for the Bank's employees at various types of suppliers'.

In particularly justified cases, at an employee's request may carry out voluntary activities for the PKO Bank Polski Foundation during his or her working hours, however, the number of days dedicated to voluntary work at the Foundation may not exceed 4 business days in a calendar year.



## 11. Retrospective recognition of the profit for 2019

According to Article 26(2) of the CRR, institutions may include interim or year-end profits in Common Equity Tier 1 capital after the Group has taken a formal decision confirming the final profit or loss of the Group for the year or, before the aforementioned formal decision has been taken, only with the prior permission of the competent authority. In May 2020, the European Banking Authority (EBA) published, in a single rulebook Q&A, its position on the timing of recognition of year-end and interim profits in the capital adequacy data (Q&A 2018\_3822 and Q&A 2018\_4085). According to this position, once the Group has formally met the criteria for including its profit for a given period in the Tier 1 capital, this profit should be included retrospectively (as at the date of the profit, and not the date of meeting the criteria), and own funds should be adjusted accordingly as at the date to which the profit relates.

In view of the foregoing, the restated data have been presented below: own funds, capital adequacy requirements and capital ratios, including the full amount of the Bank's Group profit for the 2019 in the amount of PLN 4,050 million in own funds (in the light of the Resolution No. 7/2020 of the Ordinary General Meeting of August 26, 2020 on the distribution of the profit of PKO Bank Polski S.A. achieved in the 2019 and the coverage of the loss from previous years, in which the OGM decided to retain the entire profit for the 2019 in the Bank's capital), whereby part of the amount (of PLN 1 038 million) was already included in the data published as at December 31, 2019 in regard to the permission to include part of the profit for the first half of the 2019 in own funds after deducting expected loads, obtained by the Bank's Group. Inclusion of the remaining part of the profit in own funds increased the value of funds by PLN 2.913 million (therein an increase in the recognized result by PLN 3.012 million, decrease in the value of the temporary adjustment to minimize the impact of IFRS 9 by PLN 104 million and update of the additional valuation adjustment (AVA) calculation by PLN 5 million).

Additionally, due to the implementation of the above EBA guidelines, the value of the capital requirement for credit risk decreased by PLN 86 million and, as a consequence, the total capital ratio rose by 1.46% and the Tier 1 capital ratio increased by 1.45%.

Table 11.1. Total and average net amount of exposure [template EU CRB-B]

		20	020	2019 tra	nsformed
		a)	b)	a)	b)
		Net value of exposures at the end of the period	Average net exposuresover the period	Net value of exposures at the end of the period	Average net exposuresover the period
1	Central governments or central banks	95 728	88 686	74 970	67 892
2	Regional governments or local authorities	12 902	12 573	12 162	12 219
3	Public sector entities	3 307	3 250	3 265	3 164
4	Multilateral development banks	2 513	1 993	1 068	754
5	International organisations	0	0	0	0
6	Institutions	8 603	9 346	10 165	9 730
7	Corporates	98 681	96 069	86 312	87 348
8	Of which: SMEs	15 654	14 064	7 473	8 046
9	Retail	80 675	81 077	84 517	84 839
10	Of which: SMEs	26 129	25 754	28 445	28 615
11	Secured by mortgages on immovable property	108 058	110 450	106 847	100 204
12	Of which: SMEs	7 823	5 506	2 999	1 950
13	Exposures in default	4 163	4 710	5 535	6 077
14	Items associated with particularly high risk	2 997	2 801	3 089	1 930
15	Covered bonds	0	0	0	0
16	Claims on institutions and corporates with a short-term credit assessmen	0	0	0	0
17	Collective investments undertakings	4	3	3	4
18	Equity exposures	947	909	915	870
19	Other exposures	21 152	20 092	16 451	16 165
20	Total standardised approach	439 728	431 959	405 302	391 196
21	Total	439 728	431 959	405 302	391 196



Table 11.2. Credit quality of exposures by exposure classes and instruments [template EU CR1-A]

		2019 transformed						
		a)	b)	c)	d)	e)	f)	
		Gross carrying values of Defaulted exposures				Accumulated	Accumulated write-offs	
		Delaulted exposures	Non-defaulted exposures	adjustment	adjustment	write-offs	(a+b-c-d)	
1	Central governments or central banks	0	74 970	0	0	0	74 970	
2	Regional governments or local authorities	(	12 180	18	0	0	12 162	
3	Public sector entities	(	3 269	4	0	0	3 265	
4	Multilateral development banks	(	1 068	0	0	0	1 068	
5	International organisations	(	0	0	0	0	0	
6	Institutions	(	10 169	4	0	0	10 165	
7	Corporates	(	86 717	405	0	0	86 312	
8	of which: SMEs	(	7 528	56	0	0	7 473	
9	Retail	(	85 208	690	0	51	84 517	
10	of which: SMEs	(	28 707	261	0	3	28 445	
11	Secured by mortgages on immovable property	(	107 466	618	0	0	106 847	
12	of which: SMEs	(	3 066	67	0	0	2 999	
13	Exposures in default	10 349	0	4 813	0	1 434	5 535	
14	Items associated with particularly high risk	(	3 198	108	0	0	3 089	
15	Covered bonds	(	0	0	0	0	0	
16	Claims on institutions and corporates with a short-term credit assessment	(	0	0	0	0	0	
17	Collective investments undertakings	(	3	0	0	0	3	
18	Equity exposures	(	915	0	0	0	915	
19	Other exposures	(	16 463	11	0	0	16 451	
20	Total standardised approach	10 349	401 625	6 672	0	1 484	405 302	
21	Total	10 349	401 625	6 672	0	1 484	405 302	
22	of which: Loans*	8 783	200 941	4 979	0	1 484	204 746	
23	of which: Debt securities*	(	66 971	4	0	0	66 966	
24	of which: Off-balance-sheet exposures*	484	66 265	215	0	0	66 533	

<sup>\*</sup> concerns PKO Bank Polski S.A.

Table 11.3. Risk weighted assets of the Bank Group [template EU OV1]

		The Booklin Group	RW	/As	Minimum capital requirements
		The Bank's Group	31.12.2020	31.12.2019 transformed	31.12.2020
	1	Credit risk (excluding CCR)	184 761	194 545	14 781
Article 438 (c)(d)	2	Of which the standardised approach	184 761	194 545	14 781
Article 107 Article 438 (c)(d)	6	CCR	2 906	2 610	232
Article 438 (c)(d)	7	Of which mark to market	2 444	1 917	195
Article 438 (c)(d)	8	Of which original exposure	-	-	-
	9	Of which the standardised approach	-	-	-
	10	Of which internal model method (IMM)	-	-	-
Article 438 (c)(d)	11	Of which risk exposure amount for contributions to the default fund of a CCP and other exposures to the central counterparty	112	403	9
Article 438 (c)(d)	12	Of which CVA	350	290	28
Article 438 (e)	13	Settlement risk	-	-	-
Article 438 (e)	19	Market risk	20 383	5 241	1 631
	20	Of which the standardised approach	20 383	5 241	1 631
	21	Of which IMA	-		-
Article 438 (e)	22	Large exposures	-		-
Article 438 (f)	23	Operational risk	20 363	10 540	1 629
	24	Of which basic indicator approach	3 631	3 277	290
	25	Of which standardised approach	-	-	-
	26	Of which advanced measurement approach	16 732	7 263	1 339
Article 437 (2), Article 48 and Article 60	27	Amounts below the thresholds for deduction (subject to 250% risk weight)	8 998	8 375	-
Article 500	28	Floor adjustment	-	-	-
	29	Total	228 413	212 936	18 273



Table 11.4. Structure of own funds requirement for credit risk\* in Bank's Capital Group

	20	)20	2019 tran	sformed
Exposures to central governments or central banks	611	4,1%	553	3,5%
Exposures to regional governments or local authorities	185	1,2%	176	1,1%
Exposures to public sector entities	69	0,5%	68	0,4%
Exposures to multilateral development banks	0	0,0%	0	0,0%
Exposures to international organisations	0	0,0%	0	0,0%
Exposures to institutions	202	1,3%	233	1,5%
Exposures to corporates	3 855	25,7%	4 160	26,4%
Retail exposures	3 679	24,5%	3 843	24,4%
Exposures secured by mortgages on immovable property	4 885	32,5%	5 457	34,6%
Exposures in default	365	2,4%	485	3,1%
Exposures associated with particularly high risk	216	1,4%	163	1,0%
Exposures in the form of covered bonds	0	0,0%	0	0,0%
Items representing securitisation positions	0	0,0%	0	0,0%
Exposures to institutions and corporates with a short-term credit assessment	0	0,0%	0	0,0%
Exposures in the form of units or shares in collective investment undertakings ('CIUs')	0	0,0%	0	0,0%
Equity exposures	187	1,2%	181	1,1%
Other items	759	5,1%	453	2,9%
Total	15 013	100,0%	15 772	100,0%

<sup>\*</sup> takes into account the capital requirement for credit risk, counterparty credit risk (mark-to-market method), CVA risk and CCP risk

Table 11.5. Table LRCom: Leverage ratio common disclosure

		CRR leverage ratio exposures	
		2020	2019 transformed
On-bala	nnce sheet exposures (excluding derivatives and SFTs)		
1	On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral)	371 481	345 043
2	(Asset amounts deducted in determining Tier 1 capital)	-3 043	-3 139
3	Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets) (sum of lines 1 and 2)	368 437	341 904
Derivat	ive exposures		
4	Replacement cost associated with all derivatives transactions (ie net of eligible cash variation margin)	1 098	1 242
5	Add-on amounts for PFE associated with all derivatives transactions (mark- to-market method)	2 699	2 581
7	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	-408	-421
11	Total derivatives exposures (sum of lines 4 to 10)	3 389	3 402
SFT exp	oosures		
12	Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	15	47
14	Counterparty credit risk exposure for SFT assets	7	7
16	Total securities financing transaction exposures (sum of lines 12 to 15a)	22	54
Other o	off-balance sheet exposures		
17	Off-balance sheet exposures at gross notional amount	72 651	66 749
18	(Adjustments for conversion to credit equivalent amounts)	-50 031	-48 375
19	Other off-balance sheet exposures (sum of lines 17 and 18)	22 619	18 374
Capital	and total exposure mesure		
20	Tier 1 capital	38 817	39 631
21	Leverage ratio total exposure measure (sum of lines 3, 11, 16, 19, EU-19a and EU-19b)	394 468	363 733
Leverag	ge ratio		
22	Leverage ratio	9,84%	10,90%
Choice	on transitional arrangements and amount of derecognised fiduciary items		
EU-23	Choice on transitional arrangements for the definition of the capital measure	Transitional	Transitional

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Table 11.6. Comparison of the institution's own funds as well as the capital ratio and the financial leverage ratio, taking into account and without taking into account the application of transitional arrangements concerning IFRS 9 and similar expected credit losses [IFRS 9-FL.]

		31.12.2020	31.12.2019 transformed
Avail	able capital (amounts)		
1	Common Equity Tier 1 (CET1) capital	38 816	39 630
2	Common Equity Tier 1 (CET1) capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	37 164	38 704
3	Tier 1 capital	38 816	39 630
4	Tier 1 capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	37 164	38 704
5	Total capital	41 516	42 330
6	Total capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	39 864	41 404
Risk-	weighted assets (amounts)		
7	Total risk-weighted assets	228 413	212 925
8	Total risk-weighted assets as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	226 767	212 038
	Capital ratios		
9	Common Equity Tier 1 (as a percentage of risk exposure amount)	16,99%	18,61%
10	Common Equity Tier 1 (as a percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	16,39%	18,25%
11	Tier 1 (as a percentage of risk exposure amount)	16,99%	18,61%
12	Tier 1 (as a percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	16,39%	18,25%
13	Total capital (as a percentage of risk exposure amount)	18,18%	19,88%
14	Total capital (as a percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	17,58%	19,53%
Lever	age ratio		
15	Leverage ratio total exposure measure	394 468	363 733
16	Leverage ratio	9,84%	10,90%
17	Leverage ratio as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	9,46%	10,67%



## 12. Glossary of terms and abbreviation

AMA (Advanced Measurement Approach)	operational risk advanced measurement approach for the purpose of defining the own funds requirements for operational risk according to the CRR.
CIRS (Currency Interest Rate Swap)	a currency interest rate swap transaction.
CRD IV	Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC
CSA (Credit Support Annex)	a collateral agreement – annex to the framework agreement
EaR (Earnings at risk)	defines maximum deviation of net business income from expected value with an assumed range of confidence in a specified time horizon.
EBA	European Banking Authority
ECAI	External Credit Assessment Institution
Credit exposure	the Bank's financial asset, arising as a result of providing the debtor with cash or providing services, including principal amounts and any related receivables (e.g. interest, bonuses, discounts), measured at amortized cost or at fair value through other comprehensive income, which result from: a) granted credit or loan, b) receivables on the current account, BUSINESS PARTNER current account, savings and checking account or credit card account, due to the use of an acceptable debit balance or credit limit, or overdraft or non-payment of the permissible debit balance or credit limit specified in the account agreement or a credit agreement and outstanding amounts due from the use of the charge card with the customer's account, c) interbank deposit, d) bonds, promissory notes and other debt securities held by the Bank, e) receivables purchased by the Bank, a check or a realized guarantee, f) another financing agreement that is a substitute for a loan, granted off-balance sheet credit obligation or financial guarantee
FX Swap	a foreign currency exchange swap. Counterparties determine the interest rate that will apply in the future for a specified amount in the currency of the transaction for a predetermined period.
IRB (Internal Ratings Based Approach)	an internal ratings method used to determine the capital requirement for credit risk.
ISDA	the International Swap and Derivatives Association.
Internal capital	amount of capital, that is required to cover all identified significant types of risk present in the Bank's business activity and the effect of changes in its business environment, taking into account the anticipated risk level.
Key Risk Indicators, KRI	operational risk measure, defined as key for a given area of the systemic operational risk management, application or process in the context of losses resulting from operational events, i.e. monitoring the main factors affecting the level of key risks for the Bank
CVA (Credit Value Adjustment)	adjustment of the valuation of derivatives reflecting counterparty credit risk.
DVA (Debt Value Adjustment)	adjustment of the valuation of liabilities and derivatives reflecting the Bank's own credit risk.
LDA (Loss Distribution Approach)	an approach in which historical data on internal and external events are used, as well as the information on the development of business environment factors for statistical measurement of operational risk.



LGD (Loss Given Default)	a loss suffered by the Bank in case of client's default.
Total Capital Ratio (TCR)	the main measure of capital adequacy, calculated as the quotient of own funds and total own funds requirements multiplied by 12.5%.
Material Risk Takers (MRT)	members of the Management Board and key managers with a significant impact on the risk profile of the Bank.
IAS	International Accounting Standards
IFRS	International Financial Reporting Standards
NBP	National Bank of Poland
Outsourcing	using external resources, by delegating certain tasks and actions to be performed by external companies on the basis of contracts
Banking book	contains operations not included in the trading book, specifically related to credit facilities and loans and deposits extended or accepted within the bank's basic business activity or for the purposes of liquidity and interest rate risk management
Trading book	all positions in financial instruments and commodities held by an institution either with trading intent, or in order to hedge positions held with trading intent.
Confidence level	the probability, expressed usually as a proportion, that the variable (bank's loss) under analysis will not exceed a specific value.
Individual position for a specific foreign currency (the currency position)	the difference between total assets in a currency, off-balance sheet liabilities received and assets indexed to that currency on the one hand, and total liabilities in that currency, off-balance sheet liabilities awarded and liabilities indexed to that currency on the other hand.
Probability of Default, PD	a statistical assessment of the probability of a borrower's insolvency on the annual scale (defines the portfolio-related credit risk to become materialised in the future).
RI – additional risk indicator (Risk Indicator)	operational risk measure, not specified as a key, operational nature, supporting monitoring of operational risk level for a given area, systemic operational risk management, application or process
RTS AMA	Commission Delegated Regulation (EU) 2018/959 of 14 March 2018 supplementing Regulation (EU) No 575/2013 of the European Parliament and of the Council with regard to regulatory technical standards of the specification of the assessment methodology under which competent authorities permit institutions to use Advanced Measurement Approaches for operational risk
Business risk	the risk of loss resulting from unfavourable changes in the business environment, unfavourable decisions, improper implementation of decisions or a failure to take appropriate action in response to changes in the business environment; it specifically includes the strategic risk.
Credit risk	risk of losses resulting from customer's failure to meet obligations towards the Bank or the risk of a decrease in the economic value of the Bank's receivables as a result of deterioration of the customer's ability to service obligations
Model risk	risk of suffering losses in result of wrong business decisions taken on the basis of functioning models
Operational risk	the risk of losses resulting from inadequacy or unreliability of the internal processes, the human factor and systems, or from external events; covering legal risk and does not include reputation risk and business risk.
Liquidity risk	the risk of inability to timely discharge of liabilities due to non-availability of liquid means.



Interest rate risk	risk of loss on the Bank's balance sheet and off-balance sheet items sensitive to interest rate changes, resulting from unfavourable interest rate changes on the market.
Foreign Exchange (FX) risk	risk of loss due to changes in the foreign exchange rates, generated through maintaining open currency positions in individual currencies.
Macroeconomic risk	a risk of deterioration of the Bank's financial condition in result of adverse impact of changes in macroeconomic conditions.
Unexpected Loss, UL	the maximum difference between the Bank's incurred loss at given probability during the year and the expected loss.
Expected Loss, EL	a statistically assessed value of the mean (expected) credit risk loss that the bank expects to incur on the portfolio within one year.
Strategic tolerance limit	acceptable risk level defined by the Management Board.
Rating method	a method for assessing the bank's credit risk involved in the financing of institutional clients, incurred when awarding or changing the essential terms of a loan transaction and in the period of performance of such transaction.
Stress test	a risk management tool used for assessment of the potential impact on the bank's situation of a specific event and/or changes in the market parameters not described in the standard manner with statistical measures.
Fair value	an amount for which a specific asset might be exchanged, and a liability discharged, within a market transaction between interested and informed unrelated parties.
Value at risk (VaR)	a potential loss resulting from changes in the present value of cash flows from financial instruments, or a potential loss on the maintained currency positions due to changes in the foreign exchange rates, on the assumption that a defined confidence level and holding period of the position are kept.
Credit Value-at-Risk (CVaR)	a potential loss that should not be exceeded in relation to credit risk on the maintained credit portfolio, on the assumption that a defined confidence level and holding period of the position are kept.
LCR indicator	liquidity coverage requirement describes relation of high-quality liquid assets to total net cash outflows (including cash inflows) over a 30-day period under stress scenario – European measure defined in CRDIV/CRR package
NSFR indicator	Net Stable Funding Ratio describes relation of total available stable funding to total required stable funding
LTV	ratio of the credit exposure amount to the value of the real property offered as collateral of that exposure.
Coverage ratio	a ratio of the credit and loan impairment write-downs to the value of credits and loans assessed by means of individual and portfolio approaches.
Tier I capital ratio	Capital adequacy measure, calculated as the ratio of Tier 1 capital and the sum of own funds requirements, multiplied by 12.5. No elements of additional Tier 1 capital are identified in the Bank and the Bank's Capital Group, consequently the Common Equity Tier 1 (CET1) ratio is equal to the Tier 1 capital ratio (T1)
Own funds requirements	total own funds requirements for particular risk types and own funds requirements for exceeded limits and other violations of norms described in the CRR and CRD, BRR and decisions of external supervisory and control bodies
РВА	the Polish Bank Association.