Capital Adequacy, Risk, Remuneration Policy Report of Bank Millennium Capital Group

for 2019 - update August 2020

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1. Introduction

Pursuant to the requirements set forth in Part Eight of the Regulation (EU) No. 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms, amending Regulation (EU) No. 648/2012 (“CRR”), this material (“Disclosures”) presents qualitative and quantitative information pertaining to the comprehensive image of the risk profile of the Bank Millennium S.A. (the “Bank”) Capital Group (“the Group”) as at 31 December 2019.

Pursuant to Article 432.1 of CRR, the Group may omit in its Disclosures any information that is not regarded as material. The Group regards as immaterial any information the omission or misstatement of which could not change or influence the assessment or decision of a user relying on that information for the purpose of making economic decisions. The Group did not consider any information covered by the disclosure obligation based on CRR and other regulations as not material.

Pursuant to Article 432.2, the Group may omit in its disclosures any items of information which is regarded as proprietary or confidential. Information is regarded as proprietary if the Group believes that disclosing it publicly would undermine its competitive position. Information is regarded as confidential if the Group has made an obligation to a customer or other counterparty binding it to confidentiality. The Group did not consider any information covered by the disclosure obligation based on CRR and other regulations as proprietary or confidential.

It should be noted that this material does not cover the entire scope of information to be disclosed, as defined in Part Eight of CRR. Information not included in the Disclosures has been presented in the following documents:

- Report of the Bank Millennium SA Capital Group for 12 months ended 31 December 2019, hereinafter referred to as “Yearly Financial Report”
- Management Board Report on the Activity of Bank Millennium and Capital Group of Bank Millennium for 2019, hereinafter referred to as: “Management Board Report”
- 2019 Bank Millennium and Bank Millennium Capital Group Non-financial Information Report, hereinafter referred to as “Non-financial Report”.

Disclosures of information required by Part Eight of CRR in other documents is regulated by Article 434.2 of CRR.

The information presented has been prepared on the basis of the top domestic consolidation level (Bank Millennium SA Group). In some cases data was presented for Bank Millennium SA solo as well.

The update of the document, approved by the Bank’s Management Board on the 12 August 2020, relates to tables from number 53 to 55 in Chapter 12 „Remuneration and recruitment policy”, with data on variable remuneration granted to Management Board as for year 2019.

2. Capital adequacy

Capital management and planning

Capital management relates to two areas: capital adequacy management and capital allocation. For both areas, management goals were set.

The goal of capital adequacy management is: (a) ensuring the solvency in normal and stressed conditions (economic capital adequacy/internal capital) and (b) meeting the requirements specified in external regulations (regulatory capital adequacy). Completing that goal, Bank strives to achieve internal long-term capital limits (targets), defined in Risk Strategy.

Capital allocation purpose is to create value for shareholders by maximizing the return on risk in business activity, taking into account established risk tolerance.

In a scope of capital management process, there is also a capital planning process. The goal of capital planning is to designate the own funds (capital base that is risk-taking capacity) and capital usage (regulatory capital requirements and economic capital) in a way to ensure that capital targets/limits shall be met, given forecasted business strategy and risk profile – in normal and stressed macroeconomic conditions.

Regulatory capital adequacy

Group is obliged by law to meet minimum own funds requirements, set in CRR art. 92. At the same time, the following levels, reccomendations and buffers were included in capital limits/targets setting:

- Pillar II RRE FX buffer - KNF recommendation to maintain additional own funds for the coverage of additional capital requirements in order to secure the risk resulting from FX mortgage loans granted to households, in line with art. 138.1.2a of Banking Act. A value of that buffer is defined for particular banks by KNF every year as a result of Supervisory review and Evaluation process (SREP) and relates to risk that is in KNF's opinion - inadequately covered by minimum own funds requirements, set in CRR art. 92. At present, the buffer was set by KNF in reccomendations issued in November 2019 in the level of 4.96 p.p. (Bank) and 4.87 p.p. (Group) as for Total Capital Ratio (TCR), which corresponds to capital requirements over Tier 1 ratio of 3.72 p.p. in Bank and of 3.65 p.p. in Group, and which corresponds to capital requirements over CET 1 ratio of 2.78 p.p. in Bank and 2.73 p.p. in Group [1];
- Combined buffer – defined in Act on macroprudential supervision over the financial system and crisis management – that consists of:
    - Capital conservation buffer at the level of 2.5%;

[1] That recomendation replaces the previous one from 2018, to maintain own funds for the coverage of additional capital requirements at the level of 6.41 p.p. (Bank) and 6.27 p.p. (Group) as for TCR, which should have consisted of at least 4.81 p.p. (Bank) and 4.70 p.p. (Group) as for Tier 1 capital and which should have consisted of at least 3.57 p.p. (Bank) and 3.51 p.p. (Group) as for CET1 capital

- Other systemically important institution buffer (OSII) – at the level of 0%, and the value is set by KNF every year[2];
- Systemic risk buffer at the level of 3% in force from the beginning of 2018;
- Countercyclical buffer at the 0% level.

In accordance to binding legal requirements and recommendations of Polish Financial Supervisory Authority (KNF), Bank defined minimum levels of capital ratios. being at the same time capital targets/limits. These are OCR (overall capital requirements) as for particular capital ratios.

The below table presents these levels as at 31 December 2019. The Bank will inform on each change of required capital levels in accordance with regulations.

Table 1 Minimum capital ratios as at the 2019 end (in %)

Minimum capital ratios as at the 2019 end	31.12.2019	
CET1 ratio	Bank	Group
Minimum	4.50%	4.50%
Pillar II RRE FX	2.78%	2.73%
TSCR CET1 (Total SREP Capital Requirements)	7.28%	7.23%
Capital Conservation Buffer	2.50%	2.50%
OSII Buffer	0.00%	0.00%
Systemic risk buffer	3.00%	3.00%
Countercyclical capital buffer	0.00%	0.00%
Combined buffer	5.50%	5.50%
OCR CET1 (Overall Capital Requirements CET1)	12.78%	12.73%
T1 ratio	Bank	Grupa
Minimum	6.00%	6.00%
Pillar II RRE FX	3.72%	3.65%
TSCR T1 (Total SREP Capital Requirements)	9.72%	9.65%
Capital Conservation Buffer	2.50%	2.50%
OSII Buffer	0.00%	0.00%
Systemic risk buffer	3.00%	3.00%
Countercyclical capital buffer	0.00%	0.00%
Combined buffer	5.50%	5.50%
OCR T1 (Overall Capital Requirements T1)	15.22%	15.15%
TCR ratio	Bank	Grupa
Minimum	8.00%	8.00%
Pillar II RRE FX	4.96%	4.87%

[2] In August 2019 KNF informed the Bank was not identified as other systemically important institution in 2019

TSCR TCR (Total SREP Capital Requirements)	12.96%	12.87%
Capital Conservation Buffer	2.50%	2.50%
OSII Buffer	0.00%	0.00%
Systemic risk buffer	3.00%	3.00%
Countercyclical capital buffer	0.00%	0.00%
Combined buffer	5.50%	5.50%
OCR TCR (Overall Capital Requirements TCR)	18.46%	18.37%

Capital risk, expressed in the above capital targets/limits, is measured and monitored in a regular manner. As for all capital targets, there are determined some minimum ranges for those values. A capital ratios in a given range causes a need to take an appropriate management decision or action. Regular monitoring of capital risk relies on classification of capital ratios to the right ranges and then performing the evaluation of trends and drivers influencing capital adequacy.

Own funds capital requirements

The Group is completing a project of an implementation of internal ratings based method (IRB) for calculation of own funds requirements for credit risk and calculates its own funds minimum requirements using the IRB and standardise method for credit risk and standardise methods for other risk types.

In the end of 2012, Banco de Portugal (consolidating Regulator) with cooperation of Polish Financial Supervision Authority (PFSA) granted an approval to the use of IRB approach as to following loan portfolios: (i) Retail exposures to individual persons secured by residential real estate collateral (RRE), (ii) Qualifying revolving retail exposures (QRRE). According to the mentioned approval, minimum own funds requirements calculated using the IRB approach should be temporarily maintained at no less than 80% (“Regulatory floor”) of the respective capital requirements calculated using the Standardized approach.

In the end of 2014, the Bank received another decision by Regulatory Authorities regarding the IRB process. According to its content, for the RRE and QRRE loan portfolios, the minimum own funds requirements calculated using the IRB approach had to be temporarily maintained at no less than 70% (“Regulatory floor”) of the respective capital requirements calculated using the Standardized approach until the Bank fulfils further defined conditions.

The Bank received the decision of Competent Authorities (ECB cooperating with KNF) in July 2017 on approval the material changes to IRB LGD models and revoking the “Regulatory floor”.

Internal capital

Group defines internal capital according to Polish Banking Act, as the estimated amount needed to cover all identified, material risks found in Group’s activity and changes in economic environment, taking into account the anticipated level of risk in the future.

Internal capital is used in capital management in following processes: economic capital adequacy management and capital allocation. The Group defined an internal (economic) capital estimation process. To this end, as for measurable risk types, mathematic and statistic models and methods are used.

Maintaining economic capital adequacy means a coverage (provision) of internal capital (that is an aggregated risk measure) by available financial resources (own funds). An obligation to banks to have in place that sort of risk coverage stems from Banking Act. It was mirrored in the Group's capital targets/limits: economic capital buffer and economic capital buffer in stressed conditions.

In 2019, both above capital targets were met with a surplus. A surplus of own funds over internal capital supports a further increase of banking activity, in particular in areas with a higher risk-adjusted return.

At the same time internal capital is utilised in capital allocation process, to assign an internal capital to products/business lines, calculating risk-adjusted performance measures, setting risk limits and internal capital reallocation.

Capital adequacy results

Capital adequacy evolution of Bank Millennium Group and Bank Millennium SA over the last three years was as follows:

Table 2 Capital adequacy of Bank Millennium Group (PLN mln, %)

Capital adequacy	31.12.2019	31.12.2018	31.12.2017
Risk-weighted assets	48 124.6	36 635.5	32 693.6
Own Funds requirements, including:	3 849.97	2 930.8	2 615.5
- Credit risk and counterparty credit risk	3 495.2	2 593.9	2 297.7
- Market risk	24.2	20.3	18.3
- Operational risk	326.9	313.1	293.4
- Credit Valuation Adjustment CVA	3.6	3.5	6.1
Own Funds, including:	9 668.5	7 943.0	7 190.6
Common Equity Tier 1 Capital	8 138.5	7 243.0	6 548.8
Tier 2 Capital	1 530.0	700.0	641.8
Total Capital Ratio (TCR)	**20.09%**	**21.68%**	**21.99%**
Minimum required level	18.37%	19.15%	18.91%
Surplus(+) / Deficit(-) of TCR capital adequacy (p.p.)	1.72	2.53	3.08
Tier 1 Capital ratio (T1)	**16.91%**	**19.77%**	**20.03%**
Minimum required level	15.15%	15.58%	14.56%

Surplus(+) / Deficit(-) of T1 capital adequacy (p.p.)	+1.76	4.19	5.47
Common Equity Tier 1 Capital ratio (CET1)	**16.91%**	**19.77%**	**20.03%**
Minimum required level	12.73%	12.89%	13.53%
Surplus(+) / Deficit(-) of CET1 capital adequacy (p.p.)	+4.18	6.88	6.5
Leverage ratio	**8,11**	**8.78%**	**8.94%**

The Group uses transitional arrangements for IFRS 9. As at 31.12.2019, if IFRS 9 transitional arrangements had not been applied, capital ratios were as follows:

- TCR: 19.89%
- T1: 16.70%
- CET1: 16.70
- Leverage ratio: 8.00%

Table 3 Capital adequacy of Bank Millennium (PLN mln)

Capital adequacy	31.12.2019	31.12.2018	31.12.2017
Risk-weighted assets	47 267.6	36 012,8	31 927,7
Own Funds requirements, including:	3 781.4	2 880,9	2 554,2
- Credit risk and counterparty credit risk	3 455.8	2 570,6	2 260,4
- Market risk	24.2	20,3	18,3
- Operational risk	297.7	286,4	269,4
- Credit Valuation Adjustment CVA	3.7	3,6	6,2
Own Funds, including:	9 454.5	7 738,5	7 002,3
Common Equity Tier 1 Capital	7 924.5	7 038,5	6 360,5
Tier 2 Capital	1 530.0	700,0	641,8
Total Capital Ratio (TCR)	**20.00%**	**21,49%**	**21,93%**
Minimum required level	18.46%	19,29%	19,03%
Surplus(+) / Deficit(-) of TCR capital adequacy (p.p.)	+1.54	2,20	2,90
Tier 1 Capital ratio (T1)	**16.77%**	**19,54%**	**19,92%**
Minimum required level	15.22%	15,69%	14,65%
Surplus(+) / Deficit(-) of T1 capital adequacy (p.p.)	+1.55	3,85	5,27
Common Equity Tier 1 Capital ratio (CET1)	**16.77%**	**19,54%**	**19,92%**
Minimum required level	12.78%	12,97%	13,60%
Surplus(+) / Deficit(-) of CET1 capital adequacy (p.p.)	+3.99	6,57	6,32
Leverage ratio	**7,94%**	**8,57%**	**8,74%**

The Bank uses transitional arrangements for IFRS 9. As at 31.12.2019, if IFRS 9 transitional arrangements had not been applied, capital ratios were as follows:

- TCR: 19,80%
- T1: 16,55%%
- CET1: 16,55%%
- Leverage ratio: 7.83%

As at 2019 end, capital adequacy in Bank Millennium Group remained on very high and safe level. Total Capital Ratio stayed at year end at 20.09% level for the Group (20.00% for the Bank) and Common Equity Tier 1 Capital ratio (equals T1 ratio) was at 16.91% for the Group (16.77% for the Bank). Therefore, minimum capital levels required by KNF for Bank and Group were achieved with a surplus.

Capital adequacy ratios of the Group decreased during one year period by ca 1.6 p.p. for the Group (by 1.5 p.p. for the Bank). It was caused by a faster risk-weighted assets than own funds growth. In 2019, risk-weighted assets of the Group went up by ca PLN 11.5 billion (i.e. by 31%), mainly as a result of Eurobank takeover. The Group's Own Funds raised by ca PLN 1.7 billion in 2019, mainly as a result of retention of net earnings (total net earnings for 2018 and net earnings for first half of 2019), and subordinated debt issue.

Bank Millennium has a dividend policy of distributing between 35% to 50% of net profit, subject to regulatory recommendations.

In December 2019 KNF sent the individual dividend policy recommendation, in which it set the following additional buffers for dividend distribution (above the minimum required as at 2019 end for TCR): + 1.5% to pay 75%; + additional Stress test add-on to pay 100%. That add-on was measured as the Bank's sensitivity to an adverse macroeconomic scenario and was set at 3.01% on the top of TCR, including regulatory adjustments. KNF kept also additional criteria for banks with FX mortgage portfolio (K1 based on FX mortgage share in total portfolio and K2 based on share of 2007-2008 vintages in total FX mortgage portfolio).
Capital ratios at the end of 2019 would allow to pay 75% if not additional K1 and K2 criteria for banks with FX mortgage loan portfolio.
Taking above into account and to provide a reliable capital support for growth a business activity, the Management Board of the Bank will submit to AGM a proposal of full retention of 2019 net profit in Bank's own funds. Assuming acceptance of this proposal by AGM, positive impact on T1 and TCR ratio will be approximately 0.4-0.5 p.p. (to levels 17.38% and 20.56% for Group, respectively). It should be reminded that the capital ratios as of end 2019 already incorporated the 1st half 2019 net profit, according to positive decision of KNF upon the Bank's request.

Leverage ratio stood at the safe level of 8%-9%, with a small quarterly changes and exceeds almost three times a value deemed as safe (3%).

In a long perspective, capital adequacy level of Bank and Group is evaluated as satisfactory.

3. Risk management goals and strategy

Rules management goals

The mission of risk management in the Bank Millennium Group is to ensure that all types of risks are managed, monitored and controlled as required for the risk profile (risk tolerance), nature and scale of the Group's operations. Important principle of risk management is the optimization of the risk and profitability trade-off – the Group pays special attention to ensure that its business decisions balance risk and profit adequately.

The goals of the risk management mission are achieved through implementation of the following actions:

- Development of risk management strategies, credit policy, processes and procedures defining the principles for acceptance of the allowable level of particular types of risk,
- Increasingly wider implementation of the IT tools for risks identification, control and measurement,
- Increasing awareness of employees as regards their responsibility for proper risk management at every level of the Group's organisational structure.

Risk management is centralized for the Group and takes into account the need to obtain the assumed profitability and to maintain proper risk-capital relationship, in the context of having proper level of capital to cover the risk. Within risk management system, a broad range of methods is used, both qualitative and quantitative, including advanced mathematical and statistical tools supported by adequate IT systems.

When defining the business and profitability targets, the Group takes into account the specified risk framework (Risk Tolerance) in order to ensure that business structure and growth will respect the risk profile that is targeted and that will be reflected in several indicators such as:

- Loan growth in specific products / segments
- Structure of the loan portfolio
- Asset quality indicators
- Cost of risk
- Capital requirements / Economic capital
- Amount and structure of liquidity needed.

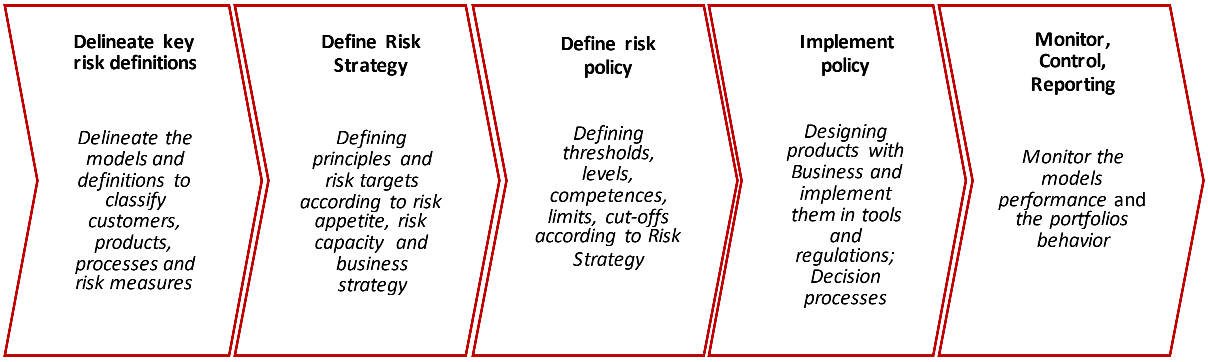
Risk management model

The risk management and control model at the Group’s level is based on the following main principles:

- ensuring the full-scope quantification and parameterization of various types of risks in the perspective of optimizing balance sheet and off-balance sheet items to the assumed level of profitability of business activity. The main areas of analysis encompass credit risk, market risk, liquidity risk and operational risk;

- all types of risks are monitored and controlled in reference to the profitability of operations and the level of capital necessary to ensure the safety of operations from the point of view of capital adequacy. The results of risk measuring are regularly reported as part of the management information system;
- the segregation of duties between risk origination, risk management and risk control.

The Risk management process of the Group is presented in the below diagram:



Segregation of duties in risk management

The split of competence in the field of risk management is as follows:

- The Supervisory Board is responsible for overseeing the compliance of the Group's risk-taking policy with the Group's strategy and its financial plan. Within the Supervisory Board acts the Committee for Risk Matters, which supports it in realization of those tasks, among others. issuing opinion on the Group's Risk Strategy, including the Group's Risk Appetite and verifying the assets and liabilities prices offered to customers.
- The Management Board is responsible for the effectiveness of the risk management system, internal capital estimation process, for reviewing the internal capital calculation and maintenance process and the internal control systems;
- The Credit Committee, the Capital, Assets and Liabilities Committee, and the Liabilities at Risk Committee are responsible for current management of different areas of banking risk, within the framework determined by the Management Board;
- The Risk Committee and the Processes and Operational Risk Committee are responsible for defining the policy and for monitoring and control of different areas of banking risk, within the framework determined by the Management Board;
- The Validation Committee is responsible for confirmation of risk models validation results and follow-up in the implementation of the measures defined by the Models Validation Office;
- The Risk Department is responsible for risk management, including identifying, measuring, analysing, monitoring and reporting on risk within the Bank. The Risk Department also prepares risk management policies and procedures as well as provides information and proposes courses of action necessary for the Capital, Assets and

Liabilities Committee, Risk Committee and the Management Board to make decisions with respect to risk management;

- The Rating Department is mainly responsible for risk rating assignment for Corporate clients (based on the evaluation of clients' creditworthiness) as well as for rating monitoring and potential revision during the period of its validity. Rating assignment process is independent from credit decision process;
- The Corporate Credit Underwriting Department, Mortgage Credit Underwriting Department and Consumer Finance Credit Underwriting Department have responsibility, within the Corporate Customer segment and Retail Customer segment, respectively, for the credit decision process, including analyzing customers' financial situation, preparing credit proposals for the decision-making levels and making credit decisions within specified limits;
- The Retail Liabilities Monitoring and Collection Department and Retail Liabilities Restructuring and Recovery Department have responsibility for monitoring repayment of overdue debts by retail customers and their collection;
- The Corporate Recovery Department develops specific strategies with respect to each debtor from recovery portfolio, which aims to maximize timely collection of the outstanding debt and minimize the risk incurred by the Group. This approach is constantly revised to reflect updated information, and the best practices and experiences regarding collection of overdue debts;
- The Treasury Control and Analyses Office has responsibility for monitoring the use of part of the Group's limits, including counterparty and stop-loss limits, the Group's FX position, results of active trading and control of operations of the treasury segment;
- The Models Validation Office has responsibility for qualitative and quantitative models analysis and validation, independent from the function of models development; development of the models validation and monitoring tools; activities connected with issuing opinions on the adequacy of the models for the segment, for which they were developed; preparing reports for the Validation Committee needs;
- Fraud Risk Management Team has responsibility for implementation and monitoring the Bank policy execution in the scope of fraud risk management in cooperation with others Bank units. Team constitutes a competence center for anti-fraud process;
- The Compliance Department has the responsibility to ensure compliance with legal regulations, related regulatory standards, market principles and standards as well as internal organization regulations and codes of conduct.

Risk management strategy

The Group has prepared a comprehensive guideline document for the risk management policy/strategy: "Risk Strategy for 2020-2022". The document takes a 3-year perspective and is reviewed and updated annually. It is approved by the Bank's Management Board and Supervisory Board. The risk strategy is inextricably linked to other strategic documents. such as: Budget, Liquidity Plan, Capital Plan.

The Risk Strategy bases on the two concepts defined by the Group:

1. Risk profile – current risk profile in amount or type of risk the Group is currently exposed. The Group should also has a forward looking view how their risk profile may

change under both expected and stress economic scenarios in accordance with risk appetite.

2. Risk appetite – the maximum amount or type of risk the Group is prepared to accept/tolerate to achieve its financial and strategic objective. Three zones are defined in accordance with warning / action required level.

Risk strategy is one of the crucial features that determines the risk profile of the Bank/Group.

Risk appetite has to ensure that business structure and growth will respect the forward risk profile. Risk appetite was reflected through defined indicators in several key areas, such as:

- Solvency
- Liquidity and funding
- Earnings volatility and business mix
- Franchise and reputation.

The Group has a clear risk strategy, covering retail credit, corporate credit, markets activity and liquidity, operational and capital management. For each risk type and overall the Group clearly defines the risk appetite.

Risk management is defined mainly through the principles and targets defined in Risk Strategy and complemented in more detail by the principles and qualitative guidelines defined in the following documents:

a. Capital Management and Planning Framework
b. Credit Principles and Guidelines
c. Rules on Concentration Risk Management
d. Principles and Rules of Liquidity Risk Management
e. Principles and Guidelines on Market Risk Management on Financial Markets
f. Principles and Guidelines for Market Risk Management in Banking Book
g. Investment Policy
h. Principles and Guidelines for Management of Operational Risk
i. Policy, Rules and Principles of the Model Risk Management
j. Stress tests policy.

Within risk appetite, the Bank and Group have defined tolerance zones for its measures (build up based on the “traffic lights” principle). As for all tolerance zones for risk appetite, it have been set:

- Risk appetite status – green zone means a measure within risk appetite, yellow zone means an increased risk of risk appetite breach, red zone means risk appetite breach
- Escalation process of actions/decisions taken - bodies/organizational entities responsible for decisions and actions in a particular zones
- Risk appetite monitoring process.

Risk management information system

Bank and Group have in place an integrated management information system that enables them to generate reports on identification, measurement and control measures relating to the management of individual risk types.

Bank and Group have defined the risk exposure reporting policy for management purposes, which sets forth the general rules for preparing and distributing information used to manage different risks. The unit responsible for preparing reports on exposure to different risks is mainly the Risk Department. The frequency and information content of the reports is adjusted to the level of powers and responsibilities of their recipients and also to the changes in the Bank's and the Group's risk profile.

Information contained in internal reports enable reliable evaluation of the risk exposure and support the decision-making process in the bank's risk management area.

The reports also include information on exposure to risks in the business activity of the subsidiaries.

Risk exposure reports for management purposes are addressed to:

- Supervisory Board (reports approved by the Bank's Management Board)
- Bank's Management Board
- Committees dedicated to risk management – Risk Committee, Capital, Assets and Liabilities Committee, Credit Committee, Liabilities at Risk Committee, Validation Coommittee, Processes and Operational Risk Committee
- Members of the Bank's Management Board
- Risk Department (internal reports)

The risk exposure reporting policy defines the following for each addressee:

- Information content (e.g. synthetic information about the credit portfolio, including key risk parameters, change in revaluation charges in the profit and loss account. etc.).
- Information format
- Information frequency (CRR 435.2.e).

Other information

In respect to individual disclosures made pursuant to Article 435.1 of CRR. the following:

- the structure and organization of the relevant risk management function including information on its authority and statute. or other appropriate arrangements;
- the scope and nature of risk reporting and measurement systems;

- the strategy for hedging and mitigating risk. and the strategies and processes for monitoring the continuing effectiveness of hedges and mitigants,

have been discussed in risk management chapters in the Yearly Financial Report and the Management Board Report.

The declarations on the adequacy of risk management arrangements providing assurance that the risk management systems put in place are adequate with regard to the profile and strategy are presented at the end of this document. (CRR 435.1.e)

Discussion of the overall risk profile. with key indicators and figures. have been included in the Yearly Financial Reports and the Management Board Reports, in the chapters on risk management. (CRR 435.1.f)

Every Board Member holds 1 directorship. (CRR 435.2.a)

The Bank has established a separate risk committee: Bank Millennium SA Risk Committee. In 2019 the Committee held 14 meetings. (CRR 435.2.d).

Table EU OVA - Institution risk management approach

Informations in that chapter and in another indicated above documents are disclosed compliant with the requirements of the Table EU OVA – Institution risk management approach (EBA/GL/2016/11).

4. CRR scope of application and own funds

The scope of consolidation of the Capital Group of Bank Millennium SA as determined in accordance with the prudential regulations (Regulation CRR) is the same as the scope of consolidation made for the preparation of consolidated financial statements prepared by the Group in accordance with IAS/IFRS. The Group did not make any exclusions of consolidated entities in comparison to IFRS financial statements, based on possibility provided by article 19.1 of the CRR.

Table 4 EU LI1 - Differences between accounting and regulatory scopes of consolidation and the mapping of financial statement categories with regulatory risk categories

ASSETS (PLN thous.)	Carrying values as reported in published financial statements	Carrying values under scope of regulatory consolidation	Subject to the credit risk framework	Subject to the CCR framework	Subject to the securitization framework	Subject to the market risk framework	Not subject to capital requirements or subject to deduction from capital
Cash, cash balances at central banks	2 203 444	2 203 445	2 203 508				
Financial assets held for trading	986 728	986 728	874 345	109 734			
Derivatives	112 485	112 485		109 734			
Equity instruments	210	210	210,0695				
Debt securities	874 033	874 033	874 135				
Non-trading financial assets mandatorily at fair value through profit or loss, other than Loans and advances to customers	169 610	169 610	169 610				
Equity instruments	66 609	66 609	66 609				
Debt securities	103 001	103 001	103 001				
Financial assets at fair value through other comprehensive income	21 870 164	21 870 165	21 872 235				
Equity instruments	29 643	29 644	29 643				
Debt securities	21 840 521	21 840 521	21 842 592				
Loans and advances to customers	69 754 938	69 754 938	70 100 851				
Mandatorily at fair value through profit or loss	1 498 195	1 498 195					
Valued at amortised cost	68 256 743	68 256 743					
Financial assets at amortised cost other than Loans and advances to customers	1 037 869	1 037 869	826 117	205 425			

Debt securities	48 153	48 153	48 193				
Deposits, loans and advances to banks and other monetary institutions	784 277	784 277	777 923				
Repurchase agreements	205 439	205 439		205 425			
Derivatives - Hedge accounting	43 159	43 159		55 000			
Investments in subsidiaries, joint ventures and associates	0	0					
Tangible assets	666 330	666 330	666 330				
Intangible assets	342 653	342 653	342 653				
Tax assets	541 828	541 828	533 129				
Current tax assets	10 310	10 310					
Deferred tax assets	531 518	531 518	533 129				
Other assets	399 778	399 778	402 383				
Non-current assets and disposal groups classified as held for sale	39 441	39 442	39 442				
Total assets	**98 055 942**	**98 055 945**	**98 030 602**	**370 158**			

LIABILITIES AND EQUITY (PLN thous.)	Carrying values as reported in published financial statements	Carrying values under scope of regulatory consolidation	Subject to the credit risk framework	Subject to the CCR framework	Subject to the securitization framework	Subject to the market risk framework	Not subject to capital requirements or subject to deduction from capital
LIABILITIES							
Financial liabilities held for trading	353 000	353 000					
Derivatives	150 735	150 735					
Liabilities from short sale of securities	202 265	202 265					
Financial liabilities measured at amortised cost	85 853 762	85 853 762					
Liablities to banks and other monetary institutions	1 578 848	1 578 848					
Liabilities to customers	81 454 765	81 454 765					
Repurchase agreements	90 712	90 712					
Debt securities issued	1 183 232	1 183 232					
Subordinated debt	1 546 205	1 546 205					
Derivatives - Hedge accounting	426 847	426 847					
Provisions	304 726	304 726					
Pending legal issues	251 333	251 333					
Commitments and guarantees given	53 393	53 393					

Tax liabilities	38 590	38 590
Current tax liabilities	38 590	38 590
Deferred tax liabilities	0	0
Other liabilities	2 137 498	2 137 498
Total Liabilities	**89 114 423**	**89 114 423**
EQUITY		
Capital	1 213 117	1 213 117
Share premium	1 147 502	1 147 502
Accumulated other comprehensive income	70 093	70 093
Retained earnings	6 510 807	6 510 807
Total equity	8 941 519	8 941 519
Total equity and total liabilities	**98 055 942**	**98 055 942**

Table 5 EU LI2 - Main sources of differences between regulatory exposure amounts and carrying values in financial statements (PLN thous.)

			Positions			
		Total	Subject to the credit risk framework	Subject to the CCR framework	Subject to the securitization framework	Subject to the market risk framework
1	Assets carryiyng value amount under the scope of regulatory consolidation (as per template EU LI1)	98 055 942				
2	Liabilities carryiyng value amount under the scope of regulatory consolidation (as per template EU LI1)	98 055 942				
3	Total net amount under the regulatory scope of consolidation	98 055 942				
4	Off-balance-sheet amounts	11 629 618				
5	*Differences (3+4-6)*	*60 231*				
6	Exposure amounts considered for regulatory purposes	109 745 791	109 375 633	370 158		

Table EU LI3 - Outline of the differences in the scopes of consolidation (entity by entity)

Considering that used in the Group method of the accounting consolidation is the same as the method of regulatory consolidation, the Table EU LI3 (EBA/GL/2016/11) is not presented.

Table EU LIA -Explanations of differences between accounting and regulatory exposure amounts

Regarding Table 5, the aggregated amount of the difference between accounting and regulatory exposure amounts is insignificant and amounts to 0,05% of the amounts of accounting exposures, with amount of regulatory exposures higher by ca PLN 60 million.

The main difference between accounting and regulatory exposure amounts comes from the difference treatment of impairment. In financial statement an impairment amount is presented as at the closing date of 31st December, 2019. As for calculation of regulatory exposure amounts, art. 1 point 1 of Regulation (EU) No 183/2014 regarding specifying the calculation of specific and general credit risk adjustments was used. In accordance with that article, impairments and adjustments were included as at 30th June, 2019, that is on the day, when they reduced CET1 capital of the Group (the day of inclusion of first half of 2019 net profit into own funds). Other discrepancies result from solutions of an operational nature and / or are related to the finalized process of data integration after the merger with the former EB. Their significance and impact on reporting values is negligible and does not reduce the information value of the Disclosure.

Companies included in consolidation as at 31.12.2019 are presented in the following table:

Table 6. Companies of Bank Millennium Group included in consolidation as at 31.12.2019

Company	Activity domain	Head office	% of the Group's capital share	% of the Group's voting share	Recognition in financial statements
BANK MILLENNIUM SA	banking services	Warsaw	Parent company		full consolidation
MILLENNIUM LEASING Sp. z o.o.	leasing services	Warsaw	100	100	full consolidation
MILLENNIUM DOM MAKLERSKI S.A.	brokerage services	Warsaw	100	100	full consolidation
MILLENNIUM TFI S.A.	investment funds management	Warsaw	100	100	full consolidation
MILLENNIUM SERVICE Sp. z o.o.	rental and management of real estate, insurance and brokers activity	Warsaw	100	100	full consolidation
MILLENNIUM GOODIE Sp. z o.o.	web portals activity	Warsaw	100	100	full consolidation
MILLENNIUM TELECOMMUNICATION SERVICES Sp. z o.o.	financial operations on capital market, consulting services	Warszawa	100	100	full consolidation
Piast Expert Sp. z o.o. (in liquidation)	marketing services	Tychy	100	100	full consolidation

LUBUSKIE FABRYKI MEBLI S.A. (in liquidation)	furniture manufacturer	Świebodzin	50 (+1 share)	50 (+1 share)	equity method valuation (*)
BG LEASING S.A. in bankruptcy	leasing services	Gdańsk	74	74	historical cost (*)

* Despite having a control over the companies Lubuskie Fabryki Mebli S.A. and BG Leasing S.A., due to insignificant nature of these companies from the realization of the primary goal of the consolidated financial statements point of view, which is the correct presentation of Group's financial situation, the Group does not consolidate capital involvement in aforementioned enterprises.

As at 31 December 2019 none of the Group's companies disclosed the capital shortage in relation to existing capital requirements.

Group considers that there are no current or foreseen material or legal impediment to the prompt transfer of own funds or repayment of liabilities among parent undertaking and its subsidiaries. (Art. 436.c)

Group did not receive from competent authorities waiver from application of prudential requirements on an individual basis, based on CRR art. 7. Group did not receive a permission of competent authorities, based on CRR art. 9. (art. 436.e)

The below table presents own funds components of Group as at 31.12.2019.

Table 7. Bank Millennium Group Own Funds as at 31.12.2019 (in PLN thous.)

ID	Item	Amount
1	**OWN FUNDS**	**9 668 540**
1.1	TIER 1 CAPITAL	8 138 540
1.1.1	COMMON EQUITY TIER 1 CAPITAL	8 138 540
1.1.1.1	Capital instruments eligible as CET1 Capital	2 360 619
1.1.1.1.1	Paid up capital instruments	1 213 117
1.1.1.1.2	Memorandum item: Capital instruments not eligible	0
1.1.1.1.3	Share premium	1 147 502
1.1.1.1.4	(-) Own CET1 instruments	0
1.1.1.1.4.1	(-) Direct holdings of CET1 instruments	0
1.1.1.1.4.2	(-) Indirect holdings of CET1 instruments	0
1.1.1.1.4.3	(-) Synthetic holdings of CET1 instruments	0
1.1.1.1.5	(-) Actual or contingent obligations to purchase own CET1 instruments	0
1.1.1.2	Retained earnings	333 623
1.1.1.2.1	Previous years retained earnings	0
1.1.1.2.2	Profit or loss eligible	333 623
1.1.1.2.2.1	Profit or loss attributable to owners of the parent	560 732

1.1.1.2.2.2	(-) Part of interim or year-end profit not eligible	-227 109
1.1.1.3	Accumulated other comprehensive income	70 093
1.1.1.4	Other reserves	5 721 172
1.1.1.5	Funds for general banking risk	228 902
1.1.1.6	Transitional adjustments due to grandfathered CET1 Capital instruments	0
1.1.1.7	Minority interest given recognition in CET1 capital	0
1.1.1.8	Transitional adjustments due to additional minority interests	0
1.1.1.9	Adjustments to CET1 due to prudential filters	-1 937
1.1.1.9.1	(-) Increases in equity resulting from securitised assets	0
1.1.1.9.2	Cash flow hedge reserve	23 397
1.1.1.9.3	Cumulative gains and losses due to changes in own credit risk on fair valued liabilities	0
1.1.1.9.4	Fair value gains and losses arising from the institution's own credit risk related to derivative liabilities	0
1.1.1.9.5	(-) Value adjustments due to the requirements for prudent valuation	-25 334
1.1.1.10	(-) Goodwill	-162 757
1.1.1.10.1	(-) Goodwill accounted for as intangible asset	-162 757
1.1.1.10.2	(-) Goodwill included in the valuation of significant investments	0
1.1.1.10.3	Deferred tax liabilities associated to goodwill	0
1.1.1.11	(-) Other intangible assets	-179 895
1.1.1.11.1	(-) Other intangible assets gross amount	-179 895
1.1.1.11.2	Deferred tax liabilities associated to other intangible assets	0
1.1.1.12	(-) Deferred tax assets that rely on future profitability and do not arise from temporary differences net of associated tax liabilities	0
1.1.1.13	(-) IRB shortfall of credit risk adjustments to expected losses	-351 983
1.1.1.14	(-)Defined benefit pension fund assets	0
1.1.1.14.1	(-)Defined benefit pension fund assets gross amount	0
1.1.1.14.2	Deferred tax liabilities associated to defined benefit pension fund assets	0
1.1.1.14.3	Defined benefit pension fund assets which the institution has an unrestricted ability to use	0
1.1.1.15	(-) Reciprocal cross holdings in CET1 Capital	0
1.1.1.16	(-) Excess of deduction from AT1 items over AT1 Capital	0
1.1.1.17	(-) Qualifying holdings outside the financial sector which can alternatively be subject to a 1250% risk weight	0
1.1.1.18	(-) Securitisation positions which can alternatively be subject to a 1250% risk weight	0
1.1.1.19	(-) Free deliveries which can alternatively be subject to a 1250% risk weight	0
1.1.1.20	(-) Positions in a basket for which an institution cannot determine the risk weight under the IRB approach. and can alternatively be subject to a 1250% risk weight	0

1.1.1.21	(-) Equity exposures under an internal models approach which can alternatively be subject to a 1250% risk weight	0
1.1.1.22	(-) CET1 instruments of financial sector entities where the institution does not have a significant investment	0
1.1.1.23	(-) Deductible deferred tax assets that rely on future profitability and arise from temporary differences	0
1.1.1.24	(-) CET1 instruments of financial sector entities where the institution has a significant investment	0
1.1.1.25	(-) Amount exceeding the 17.65% threshold	0
1.1.1.26	Other transitional adjustments to CET1 Capital	120 704
1.1.1.27	(-) Additional deductions of CET1 Capital due to Article 3 CRR	0
1.1.1.28	CET1 capital elements or deductions - other	0
1.1.2	ADDITIONAL TIER 1 CAPITAL	0
1.1.2.1	Capital instruments eligible as AT1 Capital	0
1.1.2.1.1	Paid up capital instruments	0
1.1.2.1.2*	Memorandum item: Capital instruments not eligible	0
1.1.2.1.3	Share premium	0
1.1.2.1.4	(-) Own AT1 instruments	0
1.1.2.1.4.1	(-) Direct holdings of AT1 instruments	0
1.1.2.1.4.2	(-) Indirect holdings of AT1 instruments	0
1.1.2.1.4.3	(-) Synthetic holdings of AT1 instruments	0
1.1.2.1.5	(-) Actual or contingent obligations to purchase own AT1 instruments	0
1.1.2.2	Transitional adjustments due to grandfathered AT1 Capital instruments	0
1.1.2.3	Instruments issued by subsidiaries that are given recognition in AT1 Capital	0
1.1.2.4	Transitional adjustments due to additional recognition in AT1 Capital of instruments issued by subsidiaries	0
1.1.2.5	(-) Reciprocal cross holdings in AT1 Capital	0
1.1.2.6	(-) AT1 instruments of financial sector entities where the institution does not have a significant investment	0
1.1.2.7	(-) AT1 instruments of financial sector entities where the institution has a significant investment	0
1.1.2.8	(-) Excess of deduction from T2 items over T2 Capital	0
1.1.2.9	Other transitional adjustments to AT1 Capital	0
1.1.2.10	Excess of deduction from AT1 items over AT1 Capital (deducted in CET1)	0
1.1.2.11	(-) Additional deductions of AT1 Capital due to Article 3 CRR	0
1.1.2.12	AT1 capital elements or deductions - other	0
1.2	TIER 2 CAPITAL	1 530 000
1.2.1	Capital instruments and subordinated loans eligible as T2 Capital	1 530 000
1.2.1.1	Paid up capital instruments and subordinated loans	1 530 000

1.2.1.2*	Memorandum item: Capital instruments and subordinated loans not eligible	0
1.2.1.3	Share premium	0
1.2.1.4	(-) Own T2 instruments	0
1.2.1.4.1	(-) Direct holdings of T2 instruments	0
1.2.1.4.2	(-) Indirect holdings of T2 instruments	0
1.2.1.4.3	(-) Synthetic holdings of T2 instruments	0
1.2.1.5	(-) Actual or contingent obligations to purchase own T2 instruments	0
1.2.2	Transitional adjustments due to grandfathered T2 Capital instruments and subordinated loans	0
1.2.3	Instruments issued by subsidiaries that are given recognition in T2 Capital	0
1.2.4	Transitional adjustments due to additional recognition in T2 Capital of instruments issued by subsidiaries	0
1.2.5	IRB Excess of provisions over expected losses eligible	0
1.2.6	SA General credit risk adjustments	0
1.2.7	(-) Reciprocal cross holdings in T2 Capital	0
1.2.8	(-) T2 instruments of financial sector entities where the institution does not have a significant investment	0
1.2.9	(-) T2 instruments of financial sector entities where the institution has a significant investment	0
1.2.10	Other transitional adjustments to T2 Capital	0
1.2.11	Excess of deduction from T2 items over T2 Capital (deducted in AT1)	0
1.2.12	(-) Additional deductions of T2 Capital due to Article 3 CRR	0
1.2.13	T2 capital elements or deductions - other	0
	Common Equity Tier1 Ratio (CET1)	**16,91%**
	Total Capital Ratio (TCR)	**20,09%**

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

Table 8 Reconciliation of items of own funds and equity reported in the Yearly Financial Report (in PLN thous.)

Item	Note of financial report	Value in financial report	Item in Table No. 7
Subordinated liabilities	35	1 546 205	1.2.1.1
Share capital	39	1 213 117	1.1.1.1.1
Capital from sale of shares over nominal value	List of equity items page 10	1 147 502	1.1.1.1.3
Revaluation capital	39	70 093	1.1.1.3
Retained earnings	39	6 510 807	1.1.1.2

		1.1.1.4
		1.1.1.5
Total equity and subordinated liabilities reported in the audited financial report	10 487 724	**0**
Part of net result, which cannot be included in own funds as of reporting date for purposes of calculation of prudential standards	-227 109	1.1.1.2.2.2
Goodwill	-162 757	1.1.1.10
Gross amount of other intangible assets	-179 895	1.1.1.11.1
Shortage of credit risk corrections in view of expected losses according to IRB approach	-351 983	1.1.1.13
Transitional adjustments due to IFRS 9	120 704	1.1.1.26
Value correction due to requirements on prudential valuation	-25 334	1.1.1.9.5
Correction by part of principal of subordinated liability. which cannot be included in own funds	0	1.2.1.1
Correction by interest accrued on subordinated liability	-16 205	1.2.1.1
Provision for instruments hedging cash flows	23 397	1.1.1.9.2
Total own funds	**9 668 540**	**1**

Items non deducted from own funds

As at 31 December 2019 the Group did not make significant investments in financial sector entities, as mentioned in article 43 CRR.

In case of deferred tax assets, mentioned in article 38 CRR, their value constitutes 6.6% of adjusted Tier I and in consequence it is exempted from deductions in keeping with article 48 CRR. At the same time this amount was assigned a risk weight of 250% for purposes of calculation of capital requirements.

5. Capital requirements and internal capital

5.1. Capital requirements by exposure classes and risk types

Group and Bank calculate total risk exposure amount and maintain own funds requirements in accordance with CRR article 92.

As at the 31st December, 2019 total risk exposure amount was calculated as the sum of the following items:

- Risk weighted exposure amounts for credit risk and dilution risk according to internal rating based method for retail exposures for individual customers secured on residential real estates (RRE) and revolving retail exposures (QRRE) and these calculated according the standard method as for other portfolios
- Own funds requirements to settlement/delivery risk and free deliveries
- Own funds requirements to trading book business for position risk and large exposures exceeding the limits specified in articles 395-401 CRR
- Own funds requirements to market risk as for foreign-exchange risk. settlement risk and commodities risk
- Own funds requirements to credit valuation adjustment risk
- Own funds requirements to operational risk
- Own funds requirements to counterparty credit risk.

Amounts of risk exposures and capital requirements, disclosed according to CRR art. 438.c-f, are showed in the below table.

Table 9 EU OV1. Overview of risk-weighted assets (PLN thous.)

			RWAs			Minimum capital requirements
			31.12.2019	31.12.2018	30.09.2019	31.12.2019
CRR	1	Credit risk (excluding CCR)	43 082 326	31 504 636	42 076 057	3 446 586
Art. 438cd	2	*of which the standardized approach*	34 089 757	21 944 694	33 062 801	2 727 181
Art. 438cd	3	*of which the foundation IRB (FIRB) approach*				

Art. 438cd	4	*of which the advanced IRB (AIRB) approach*	8 992 569	9 559 942	9 013 256	719 406
Art. 438d	5	*of which equity IRB under the simple risk-weighted approach or the IMA*				
Art. 107 Art. 438cd	6	CCR	120 023	125 118	219 322	9 602
Art. 438cd	7	*of which mark-to-market*	75 090	81 432	159 105	6 007
Art. 438cd	8	*of which original exposure*				
	9	*of which standardized approach*				
	10	*of which internal model method (IMM)*				
Art. 438cd	11	*of which risk exposure amount for contributions to the default fund of a CCP*				
Art. 438cd	12	*of which CVA*	44 933	43 686	60 217	3 595
Art. 438e	13	*Settlement risk*				
Art. 449oi	14	Securitization exposures in the banking book (after the cap)				
	15	of which IRB approach				
	16	*of which IRB supervisory formula approach (SFA)*				
	17	*of which internal assessment approach (IAA)*				
	18	*of which standardized approach*				
Art. 438e	19	*Market risk*	302 494	253 788	304 179	24 200
	20	of which standardized approach	302 494	253 788	304 179	24 200
	21	*of which IMA*				
Art. 438e	22	*Large exposures*				
Art. 438f	23	Operational risk	4 086 613	3 913 781	5 198 300	326 929
	24	of which basic indicator approach		2 311		
	25	*of which standardized approach*	4 086 613	3 911 470	5 198 300	326 929
	26	*of which advanced measurement approach*				

Art. 437.2, Art. 48, Art. 60	27	*Amounts below the thereshold for deduction (subject to 250% risk weight)*	533 129	838 216	518 855	42 650
Art. 500	28	Floor adjustment				
	29	Total	48 124 585	36 635 539	48 316 713	3 849 967

In y-o-y, total risk-weighted assets (RWA) grew by 31% (by ca PLN 11.5 bn). The increase in RWA on credit risk had a dominant influence on this change (almost 98% of total RWA change), mainly incorporation of former Eurobank loans portfolio (RWA amounted to ca 8.4 bn). Within credit risk RWA, the highest rise of exposures to retail customers was noted (75% of total RWA credit risk change) and then exposures to corporates (15% of that change). RWA for other risks are less important. The analysis of RWA changes is presented in the following Table 10.

Table 10. Analysis of RWA's main changes in 2019 (PLN million)

Item	Change in 2019 (in PLN milllion)	Change in 2019 (in %)
RWA total, including:	11 489	31%
RWA credit risk (including CCR) 1)	11 266	35%
incl. RWA retail exposures	8 497	52%
incl. RWA of former Eurobank	8 392	
incl. RWA corporate exposures	1 674	12%
incl. RWA other exposures	1 095	56%
RWA market risk	49	19%
RWA CVA 2)	1	3%
RWA operational risk	173	4%

**CCR - counterparty credit risk*
***CVA - credit valuation adjustment*

The below table presents risk-weighted assets flow statements of credit risk exposures under IRB approach, what relates to retail exposures to individual persons secured by residential real estates (RRE) and qualifying revolving retail exposures (QRRE). That information is disclosed in accordance to CRR art. 438.d.

Table 11 EU CR8 - RWA flow statements of credit risk exposures under IRB approach

Date: 31 December 2019 (reporting period), 30 September 2019 (previous reporting period), PLN thous

		RWA amounts	Capital requirements
1	**RWAs as at the end of the previous reporting period**	**9 013 256**	**721 060**
2	Asset size	339 210	27 137
3	Asset quality	-256 635	-20 531
4	Model updates		
5	Methodology and policy		
6	Acquisitions and disposals		
7	Foreign exchange movements	-112 795	-9 024
8	Other	9 532	763
9	**RWAs as at the end of the reporting period**	**8 992 569**	**719 406**

relates to retail exposures to individual persons secured by residential real estate collateral (RRE) and qualifying

revolving retail exposures (QRRE)

Table EU INS1 – Non-deducted participations in insurance undertakings

Considering that Bank does not have holdings of own funds instruments of an insurance undertaking, a re-insurance undertaking or an insurance holding company and does not have permit according to the paragraph 49.1 CRR, Table EU INS1 (EBA/GL/2016/11) is not presented.

5.2. INTERNAL CAPITAL

The Group and the Bank calculate and maintain on an ongoing basis internal capital amount, that is considered to cover adequately the nature and level of the risk to which they are or might be exposed, according to art. 73 od Directive 2013/36/UE.

The Group and the Bank carry out the internal capital adequacy assessment process (ICAAP) in reliance on the models of internal (economic) capital.

The Group and the Bank define economic capital as the amount of capital which is needed to cover all the unexpected economic losses that may occur during a specified future period and that are estimated with specific probability, without jeopardizing interests of the Group's depositors/creditors. Internal capital calculations incorporate all the material risk types to which the Group is exposed and are based on a set of parameters developed on the basis of the individual features and characteristics of the Polish market. The models quantify the value of expected and unexpected losses on account of the risk types considered to be material, at the assumed confidence level and in a 1-year time horizon.

Internal capital is calculated and maintained as to every risk type evaluated as a material one and as to risk types, to which own funds requirements are maintained, according to CRR.

The Group and the Bank defined the below risk types as material, presented together with methods of internal capital estimation. The last risk materiality assessment was completed in December 2019.

Table 12. Material risk types and methodologies to estimate internal capital to material risk types

Risk type	Internal capital estimation method
Credit risk: - credit default risk - counterparty credit risk - sovereign risk	VaR for credit risk – modified Credit Risk + model
RRE FX risk	Pillar II RRE FX buffer - modified methodology of calculation of additional own funds requirements to cover risk of retail exposures denominated in FX secured on residential real estates
Hard-to-measure risks: - Business risk - IT strategy risk - BFG risk	Methodology of defining of internal capital to hard-to-measure risk types
Operational risk: - External fraud risk [1)] - ICT - security risk - ICT - availability and continuity risk - Compliance risk - Data protection risk - Litigation risk	Modified standard method

1) ICT – Information and Communication technologies

Completing riks materiality assessment in 2019, 11 main risk categories were defined in total, and within them 69 types of risk, including many types of non-financial and hard-to-measure risks. Defined risk categories include:

1. Credit risk
2. Concentration risk
3. Liquidity risk
4. Market risk
5. Real estate risk
6. Operational risk

7. Interest rate risk in banking book
8. Business risk
9. Reputational risk
10. Other risk types
11. RRE FX risk – all aspects and areas of risk of loan portfolio secured by residential real estate in foreign currency

In internal capital calculation, the Group and the Bank have taken a conservative approach to the correlation between individual risk types (the fact that different risk types do not convert to losses simultaneously) and calculates the effect of diversification on the entire loss distribution.

In addition to the above risk types considered as material (Table 12), the Group and the Bank also prudently maintain internal capital for risk types covered by regulatory capital requirements or when it is required in a specified supervisory guidelines. It regards the following risk types:

- Market risk in trading book
- Interest rate risk in banking book
- Risk of equity in banking portfolio
- Credit Valuation Adjustment risk.

In line with the recommendations issued by the banking supervision authority, individual risk types and the diversification effect are subjected to stress tests. The total diversified internal capital is subject to economic assessment of capital adequacy, by a comparison with "risk bearing capacity" (available financial resources). The Group conservatively assumes that the available financial resources are equivalent to regulatory own funds which form the basis for calculating the total capital ratio.

The internal capital adequacy assessment process following the Group's approach is closely linked to the risk, capital and business management processes in place in the Group. It consists of the following stages:

1. Classification and assessment of materiality of risk types, to determine the method for incorporating them in the risk management process and in the ICAAP process,

2. Measurement (quantification) of risk,

3. Aggregation of internal capital to secure material risk of operations, while taking into account the effect of correlation between risk types,

4. Assessment of capital adequacy by comparing the Bank's economic risk (internal capital) to its capacity to cover the risk,

5. Allocation of internal capital to business lines/areas of operation,

6. Use of allocated internal capital to measure risk-based efficiency, set risk limits, reallocate capital while taking into account risk-weighted returns.

7. Control and monitoring of the risk level, available financial resources, capital limits and objectives.

Capital adequacy assessment carried out at the end of 2019 indicates a high level of this adequacy, which is shown in a significant surplus of capital resources (equivalent to regulatory own funds) as compared to economic risk (internal capital value) and risk calculated on the basis of supervisory regulations (the value of minimum capital requirements to cover risk).

Both the Bank and the Group meet the statutory requirements regarding the level of own funds and the internal capital set forth in Article 128 of the Banking Law Act and in the CRR.

6. Credit risk

Table EU CRA - General qualitative information about credit risk

Qualitative information on credit risk are disclosed in Financial Report (chapter on credit risk) and in Management Report, according to requirements of Table EU CRA – General qualitative information about credit risk (EBA/GL/2016/11).

Table 13 EU CRB-B Total and average net amount of exposures (PLN thous.)

		Net value of exposures at the end of the period *)	Average net exposures over the period *)
1	Central governments or central banks		
2	Institutions		
3	Corporates		
4	*of which: Specialized lending*		
5	*of which: SMEs*		
6	Retail	34 968 992	33 859 628
7	*Secured by real estate property*	30 679 334	29 764 951
8	** SME's*	38 998	25 577
9	** Non-SME's*	30 640 336	29 739 374
10	*Qualifying revolving*	4 289 658	4 094 678
11	*Other retail*		
12	** SMEs*		
13	** Non-SMEs*		
14	Equity		
15	**Total IRB approach**	**34 968 992**	**33 859 628**
16	Central governments or central banks	24 518 701	24 080 072
17	Regional governments or local authorities	288 359	314 697
18	Public sector entities	84 878	71 145
19	Multilateral development banks	176 117	152 826
20	International organizations		
21	Institutions	901 506	931 942
22	Corporates	21 545 763	20 675 994
23	*of which: SMEs*	12 327 900	12 254 066

24	Retail	22 259 099	19 072 960
25	*of which: SMEs*	2 630 829	2 615 964
26	Secured by mortgages on immovable property	4 210 422	4 202 968
27	*of which: SMEs*	299	75
28	Exposures in default	1 403 828	1 222 582
29	Items associated with particularly high risk	44	44
30	Covered bonds		
31	Claims on institutions and corporates with a short-term credit assessment		
32	Collective investments undertakings		
33	Equity exposures	199 419	147 330
34	Other exposures	2 209 353	1 925 265
35	**Total standarized approach**	**72 183 240**	**67 372 275**
36	**Total**	**107 152 232**	**101 231 904**

**) without counterparty credit risk, on-balance and off-balance*

Table 14 EU CRB-C - Geographical breakdown of exposures (PLN thous.) *

		European Union (EU)	Poland	Other EU countries	Other geographical areas	Total
1	Central governments or central banks					
2	Institutions					
3	Corporates					
4	Retail	160 303	34 345 786	320 821	142 081	34 968 992
5	Equity					
6	**Total IRB approach**	**160 303**	**34 345 786**	**320 821**	**142 081**	**34 968 992**
7	Central governments or central banks		24 518 701			24 518 701
8	Regional governments or local authorities		288 359			288 359
9	Public sector entities		84 878			84 878
10	Multilateral development banks	176 117				176 117
11	International organizations					
12	Institutions	495 686	17 171	16 222	372 427	901 506
13	Corporates	257 131	21 288 632			21 545 763
14	Retail	25 584	21 830 171	267 020	136 325	22 259 099
15	Secured by mortgages on immovable property	5 119	4 204 435	638	231	4 210 422

16	Exposures in default	1 612	1 376 985	10 491	14 742	1 403 828
17	Items associated with particularly high risk	31,93875	12,1			44,03875
18	Covered bonds					
19	Claims on institutions and corporates with a short-term credit assessment					
20	Collective investments undertakings					
21	Equity exposures		96 418		103 001	199 419
22	Other exposures		2 209 353			2 209 353
23	**Total standarized approach**	954 550	70 333 695	283 242	611 753	72 183 240
24	**Total**	1 114 853	104 679 481	604 063	753 834	107 152 232

**) without counterparty credit risk, net values of balance sheet and off-balance sheet exposures*

Table 15. EU CRB-D - Concentration of exposures by industry or counterparty types (in PLN thous.) *

		Agriculture, forestry and fishing	Mining and quarrying	Manufacturing	Electricity, gas, steam and air conditioning supply	Water supply	Construction	Wholesale and retail trade	Transport and storage	Accomodation and food service activities	Information and communication
1	Central governments or central banks										
2	Institutions										
3	Corporates										
4	Retail	398		6 462			6 034	13 026	549	4 556	99
5	Equity										
6	Total IRB approach	398		6 462			6 034	13 026	549	4 556	99
7	Central governments or central banks								92 227		
8	Regional governments or local authorities										
9	Public sector entities						10				
10	Multilateral development banks										
11	International organizations										
12	Institutions										
13	Corporates	73 487	64 645	6 599 638	433 993	182 251	1 304 971	6 519 811	2 002 388	124 367	855 646
14	Retail	28 360	14 839	311 259	4 986	24 701	343 111	536 394	615 804	75 568	62 479
15	Secured by mortgages on immovable property										
16	Exposures in default	3 232	233	196 616	85	1 031	40 165	73 198	40 180	17 695	1 792
17	Items associated with particularly high risk										
18	Covered bonds										
19	Claims on institutions and corporates with a short-term credit assessment										
20	Collective investments undertakings										

21	Equity exposures										
22	Other exposures										
23	**Total standarized approach**	101 847	79 484	6 910 897	438 979	206 952	1 648 092	7 056 703	2 750 595	199 935	918 125
24	**Total**	102 245	79 484	6 917 359	438 979	206 952	1 654 126	7 069 730	2 751 144	204 491	918 225

		Financial and insurance activity	Real estate activities	Professional, scientific and technical activities	Administrative and support services activities	Public administration and defence, compulsory social security	Education	Human healyh services and social work acivities	Arts, entertainment and recreation	Other services	Total
1	Central governments or central banks										
2	Institutions										
3	Corporates										
4	Retail	643	571	3 651	925		897	819	0	368	38 998
5	Equity										
6	Total IRB approach	643	571	3 651	925		897	819	0	368	38 998
7	Central governments or central banks							249			92 476
8	Regional governments or local authorities					269 479					269 494
9	Public sector entities						42 094		2 001	95	84 874
10	Multilateral development banks										
11	International organizations										
12	Institutions										
13	Corporates	416 886	1 141 590	703 199	658 991	61	15 731	147 989	17 669	17 820	21 281 134

14	Retail	44 383	52 283	202 550	105 320	70	27 376	66 884	19 487	34 846	2 570 701
15	Secured by mortgages on immovable property										
16	Exposures in default	2 600	31 741	14 846	10 443	0	788	507	832	893	436 878
17	Items associated with particularly high risk										
18	Covered bonds										
19	Claims on institutions and corporates with a short-term credit assessment										
20	Collective investments undertakings										
21	Equity exposures										
22	Other exposures										
23	**Total standarized approach**	461 289	1 193 873	905 749	764 311	269 611	85 201	215 122	39 157	52 776	24 298 700
24	**Total**	1 388 395	3 615 074	2 743 047	2 306 150	808 832	259 083	648 328	118 303	160 324	24 337 698

**) without counterparty credit risk, net values of balance sheet and off-balance sheet exposures*

Table 16. EU CRB-E - Maturity of exposures (in PLN thous.)

		On demand	<= 1 year	> 1 year <= 5 years	> 5 years	No stated maturity	Total
1	Central governments or central banks						
2	Institutions						
3	Corporates						
4	Retail	1 039 491	1 502 551	2 225 192	30 201 758		31 748 809
5	Equity						
6	**Total IRB approach**	1 039 491	1 502 551	2 225 192	30 201 758		31 748 809
7	Central governments or central banks		2 742 990	19 691 236	1 537 733	546 742	24 518 701
8	Regional governments or local authorities	102 612	48 673	66 069	71 005		173 891
9	Public sector entities	20 866	21 865	42 147			56 918
10	Multilateral development banks			81 745	94 372		176 117
11	International organizations						
12	Institutions	115 000	780 837	20		5 649	786 490
13	Corporates	2 423 903	9 204 897	7 776 579	2 065 029	75 355	15 861 460
14	Retail	763 590	934 626	7 903 857	12 634 923	22 103	21 808 863
15	Secured by mortgages on immovable property	1 586	869	28 863	4 179 104		4 191 283
16	Exposures in default	657 847	133 754	272 921	321 743	17 563	1 374 144
17	Items associated with particularly high risk					44	44
18	Covered bonds						
19	Claims on institutions and corporates with a short-term credit assessment						
20	Collective investments undertakings						
21	Equity exposures					199 419	199 419
22	Other exposures					2 209 353	2 209 353
23	**Total standarized approach**	3 425 972	13 733 888	35 561 652	16 403 062	3 058 666	65 791 257
24	**Total**	4 465 462	15 236 439	37 786 844	46 604 821	3 058 666	97 540 066

6.1. Capital requirements to credit risk

Calculating risk-weighted exposures in scope of credit risk, Group and Bank use standard method and internal rating based method as for portfolios described in the point 6.1 according to the approval of the competent authorities described in the point 11.1.

Exposure to securitization positions are not present (Explanations in the additional information to the Yearly Financial Report) (Art. 449).

Table 17. EU CR4 - Standardised approach - Credit risk exposure and CRM effects (in PLN thous.)

		Exposures CCF and CRM		Exposures after CRM		RWA's and RWA density	
	Exposure 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	24 518 701	0	24 831 151	198,64424	1 338 698	5,4%
2	Regional governments or local authorities	173 915	114 378	173 915	140	34 811	20,0%
3	Public sector entities	56 672	32 942	56 672	472	28 572	50,0%
4	Multilateral development banks	176 117	0	176 117	0	0	0,0%
5	International organizations						
6	Institutions	786 490	148 020	1 674 700	15 308	632 945	37,5%
7	Corporates	15 223 808	7 115 144	14 819 967	1 293 822	14 920 003	92,6%
8	Retail	17 099 206	456 803	16 253 335	6 611	11 843 653	72,8%
9	Secured by mortgages on immovable property	4 086 479	225 948	4 075 352	84 336	2 132 375	51,3%
10	Exposures in default	1 719 558	32 947	1 654 310	32 442	2 268 328	134,5%
11	Items associated with particularly high risk	44	0	44	0	66	150,0%
12	Covered bonds						
13	Claims on institutions and corporates with a short-termcredit assessment						
14	Collective investments undertakings						

15	Equity exposures	199 419	0	199 419	0	199 653	100,1%
16	Other exposures						
17	**Total**	**64 040 409**	**8 126 183**	**63 914 982**	**1 433 330**	**33 399 105**	**51,1%**

(*) only on-balance and off-balance positions

The below table presents exposures' amounts in scope of standardised approach of credit risk own funds requirements and the breakdown by asset class and risk weight.

Table 18. EU CR5 - Standardized approach (in PLN thous.)

	Exposure classes	Risk weight								Other	Total
		0%	20%	35%	50%	75%	100%	150%	250%		
1	Central governments or central banks	24 298 221							533 129		24 831 349
2	Regional governments or local authorities		174 055								174 055
3	Public sector entities		3		57 144						57 146
4	Multilateral development banks	176 117									176 117
5	International organizations										
6	Institutions		870 099		1 140 878		49 575				2 060 551
7	Corporates		62 173		199 626		15 624 864			281 908	16 168 571
8	Retail		8 701		61 317	15 654 230	461 989			73 760	16 259 997
9	Secured by mortgages on immovable property			3 065 361		1 146	1 092 630	552			4 159 689
10	Exposures in default						523 599	1 163 650			1 687 249
11	Items associated with particularly high risk							44			44
12	Covered bonds										
13	Claims on institutions and corporates with a short-term credit assessment										
14	Collective investments undertakings										
15	Equity exposures						199 263		156		199 419
16	Other exposures										
17	**Total**	**24 474 338**	**1 115 030**	**3 065 361**	**1 458 965**	**15 655 376**	**17 951 919**	**1 164 246**	**533 285**	**355 668**	**65 774 189**

(*) on-balance and off-balance, securities financing and derivatives

6.2. COUNTERPARTY CREDIT RISK

Counterparty credit risk means the risk that the counterparty to a transaction could default before the final settlement of the transaction's cash flows.

The exposure to counterparty credit risk pertains to exposures arising from derivatives. repurchase transactions. securities or commodities lending or borrowing transactions. long settlement transactions and margin lending transactions.

At the end of 2019, the Group hold derivatives and repurchase transactions and there were no transactions regarding securities or commodities lending or borrowing transactions, long settlement transactions or margin lending transactions.

The Group presents its exposure to counterparty credit risk primarily under hedging derivatives and derivatives under contracts concluded with customers and repurchase transactions.

Amounts of exposures to counterparty credit risk are presented in the below table.

Table 19. EU CCR3 - Standardized approach - CCR exposures by regulatory portfolio and risk (in PLN thous.)

	Exposure classes	Risk weight									Total
		0%	2%	4%	10%	20%	50%	75%	100%	150%	
1	Central governments or central banks										
2	Regional governments or local authorities										
3	Public sector entities					1					**1**
4	Multilateral development banks										
5	International organizations										
6	Institutions					16 122	144 965				161 088
7	Corporates								52 505	747	53 252
8	Retail								38		38
9	Claims on institutions and corporates with a short-term credit assessment										
10	Other exposures										
11	**Total**					**16 123**	**144 965**		**52 543**	**747**	**214 378**

Table EU CCRA - Qualitative disclosure requirements related to CCR

Qualitative information related to CCR is disclosed in the current chapter, in line with requirements of the Table EU CCRA – Qualitative disclosure requirements related to CCR (EBA/GL/2016/11).

The below table presents risk-weighted assets and own funds requirements amounts regarding counterparty credit risk.

Table 20. Counterparty credit risk - risk-weighted assets and capital requirements (in PLN thous.)

Exposure type	Portfel	RWA 31.12.2019	Own funds requirements 31.12.2019
Derivatives	Institution	159 741	12 779
Derivatives	Corporates	46 084	3 687
Derivatives	Public sector entities	1	0
Derivatives	Retail	39	3
Repos	Institution	1 347	108
Repos	Corporates	7 168	573
Total		**214 378**	**17 150**

Internal capital (Article 439.a)

In respect to the approaches used to assign internal capital to counterparty credit risk exposures, a modified Credit Risk+[3] approach is used, taking into account counterparty risk parameters: PD, LGD & EAD.

Credit limits

Credit limits applicable to counterparty credit risk exposures are set within the exposure limits for banks and non-bank customers, which are parties to transactions.

For banks, overall exposure limits are set in accordance with internal *Instruction for setting and controlling exposure limits to foreign and domestic banks*. With respect to foreign exchange transactions, fx swaps, currency options, deposit transactions, FRAs, interest rate swaps and currency-interest rate swaps (“fx and money market transactions”) – sub-limits are set, which mark the Bank’s maximum exposure to outstanding currency purchase/sale transactions (spot and forward), active (outstanding) term deposits in a foreign or Polish bank (without due interest) and other outstanding transactions mentioned above. Irrespective of the sub-limits,

[3] Statistical credit risk model, developed by Credit Suisse First Boston Bank

settlement limits have been set, which are linked to the concentration of the counterparty's obligations towards the Bank for the settlement date agreed on when they were concluded ("value date").

The Group also concludes derivatives contracts upon orders from its customers. With respect to treasury transaction limits (including derivatives) concluded with non-bank customers, granting such limits to a customer is a pre-requisite[4] for the Bank to perform a derivative transaction for the customer. The Bank requires a customer applying for a treasury limit to have credit capacity for requested treasury limit and additionally for the amount equal to a specific portion of the requested treasury limit, to have a risk rating and natural exposure, that is cash flows under sales and purchases in a convertible currency other than PLN.

Collateral (Article 439.b)

As part of the policies for securing collateral, Credit Support Annexes to ISDA (International Swaps and Derivatives Association) agreements (CSAs) are broadly used – or their Polish equivalents (binding in relations with domestic banks).

The Bank concludes derivative transactions with those counterparties on the inter-bank market, with whom it has signed ISDA (International Swaps and Derivatives Association) master agreements. According to current market practice and regulations, CSAs are signed along with ISDA agreements to cover matters related to the collateralization of exposures under concluded transactions. CSAs are signed bilaterally and establish mutual rights to receive a security deposit from a counterparty for whom the valuation of active derivative transactions is negative on a given day. All active CSAs in place between the Bank and its counterparties fulfil currently binding on the Bank requirements (including the ones related to Variation Margin) established by EMIR regulations.

The position concluded under derivative transactions with customers other than banks is immediately referred for management by inter-bank market dealers and is hedged by an inter-bank market transaction.

The rules for establishing credit impairment for credit risk are presented in the section entitled "Financial risk management - Credit risk" of the Yearly Financial Report.

Wrong way risk exposures (Article 439.c)

The Group does not identify its wrong-way risk exposures as material.

The impact of the amount of collateral the Bank would have to provide given a downgrade in its credit rating (Article 439.d)

The Bank is the Guarantor of the loan agreement signed between Millennium Leasing and European Investment Bank („Finance Contract") on December 15, 2017. The loan amounts to EUR 100 m and was drawn in four tranches in 2018.

[4] It is possible to conclude transaction under cash deposit, in case of lack of treasury transaction limit

The loan is secured in two ways. By Millennium Leasing in the form of assignment of rights from lease agreements (the value of assigned rights makes not less than 120 % of the granted loan) and by Bank Millennium in the form of the First Demand Guarantee up to amount of the already drawn loan plus accompanied interests, taxes, fiscal charges, duties etc.

According to the provisions of the Finance Contract in case the credit rating:

- by Fitch is B+ or below;
- by Moody is B1 or below;

it will be necessary to establish additional security for the Guarantee in the form of guarantee on terms acceptable for EIB (cash collateral, financial collateral, or other security).

The provisions of First Demand Guarantee warranty to EIB that in the time of execution of FDG by EIB, Bank Millennium long term rating granted by Fitch is BBB-, by Moody's is Baa2. Bank Millennium is obliged to inform EIB about any change in its rating.

Articles 439.e. 439.f. 439.g. 439.h. 439.i CRR

To determine the amount of its credit exposure under derivative instruments, the Group applies the Mark-to-market method laid down in Article 274 of CRR.

Amounts of counterparty credit risk by approach is presented in the below table.

Table 21. EU CCR1 - Analysis of CCR exposure by approach (in PLN thous.)

	Notional	Replacement cost/current market value	Potential future credit exposure	EEPE (Effective Expected Exposure Profile)	Multiplier	EAD post CRM (EAD post Credit Risk Mitigation)	RWAs
Mark to market		414 284			0	632 069	214 378

Amounts of risk of credit valuation adjustment are showed in the below table.

Tabela 22. EU CCR2 - CVA capital charge (in PLN thous.)

		Exposure value	RWAs
1	Total portfolios subject to the advanced method		
2	(i) VaR component (including the 3x multiplier)		
3	(ii) SVaR component (including the 3x multiplier)		
4	All portfolios subject to the standardized method	359 986	44 933
EU4	based on the original exposure method		

5	Total subject to the CVA capital charge	359 986	44 933

Exposures to derivatives with Central Counterparties are presented in the below table.

Table 23. EU CCR8 - Exposures to CCPs (in PLN thous.)

		EAD post CRM	RWAs
1	**Exposures to QCCPs (total)**		13 914
2	Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of ehich	69 572	13 914
3	(i) OTC derivatives	69 572	13 914
4	(ii) Exchange-traded derivatives		
5	(iii) SFTs		
6	(iv) Netting sets where cross-product nettinh has been approved		
7	Segregated initial margin	6 194	
8	Non-segregated initial margin		
9	Prefunded default fund contributions	7 243	90 540
10	Alternative calculation of own funds requirements for exposures		13 914
11	**Exposures to non-QCCP (total)**		
12	Exposures for trades at non-QCCPs (excluding initial margin and default fund contributions); of ehich		
13	(i) OTC derivatives		
14	(ii) Exchange-traded derivatives		
15	(iii) SFTs		
16	(iv) Netting sets where cross-product nettinh has been approved		
17	Segregated initial margin		
18	Non-segregated initial margin		
19	Prefunded default fund contributions		
20	Unfunded default fund contributions		

Table [EU CCR4] - IRB approach - CCR exposures by portfolio and PD scale

Considering that Bank does not calculate CCR own requirements using IRB approach, Table EU CCR4 (EBA/GL/2016/11) is not presented.

Table [EU CCR7] - RWA flow statements of CCR exposures under the IMM

Considering that the Bank does not use IMM, Table EU CCR7 (EBA/GL/2016/11) is not presented.

Table [EU CCR5-A] - Impact of netting and collateral held on exposure values

Considering that the Bank does not use netting for CCR exposures, Table EU CCR5-A (EBA/GL/2016/11) is not presented.

Table 24. EU CCR5-B - Composition of collateral for exposures to CCR (in PLN thous.)

	Collateral used in derivative transactions				Collateral used in SFTs	
	Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received	Fair value of posted collateral
	Segregated	Unsegregated	Segregated	Unsegregated		
		46 868	6 194	343 144	206 192	
Total		46 868	6 194	343 144	206 192	

Table [EU CCR6] - Credit derivatives exposures

Considering that the Bank does not hold credit derivatives exposures, Table EU CCR6 (EBA/GL/2016/11) is not presented.

Fair values of respective derivatives contracts. notional amounts of instruments by maturities and valuation of derivative instruments are presented in notes to the Yearly Financial Report (Note 23).

Data on security margins and netting of receivables and liabilities under master agreements are presented in Additional Information to the Yearly Financial Report.

6.3. Credit risk adjustments (impairment and impairment charges)

The Group's strategy and policy applicable to impairment and recognizing impairment charges has been presented in the Yearly Financial Report section 3 "Credit risk" in the part 9 on financial risk management. It contains a detailed description of:

- Organization of the process to identify and measure impairment of credit exposures in order to determine adjustments for specific and general credit risk
- Analysis of individual impairment of credit receivables

- Collective analysis of a credit portfolio (Art. 442 a-b)

Table EU CRB-A - Additional disclosure related to the credit quality of assets (442.a,b)

Information in that chapter and the indicated above documents are disclosed according to the requirements of Table EU CRB-A – **Additional disclosure related to the credit quality of assets (EBA/GL/2016/11).**

Table 25. EU CR1-A - Credit quality of exposures by exposure class and instrument (in PLN thous.)

		Gross carrying values of		Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges of the period	Net values
		Defaulted exposures	Non-defaulted exposures					(a+b-c-d)
1	Central governments or central banks	0	0	0	0	0	0	0
2	Institutions	0	0	0	0	0	0	0
3	Corporates	0	0	0	0	0	0	0
4	*of which: Specialized lending*	0	0	0	0	0	0	0
5	*of which: SMEs*	0	0	0	0	0	0	0
6	Retail	941 538	34 632 438	572 336	32 648	0	604 984	34 968 992
7	*Secured by real estate property*	832 560	30 326 852	463 691	16 387	0	480 078	30 679 334
8	* SME's	174	39 188	200	164	0	364	38 998
9	* Non-SME's	832 386	30 287 664	463 491	16 223	0	479 714	30 640 336
10	*Qualifying revolving*	108 979	4 305 585	108 645	16 261	0	124 906	4 289 658
11	*Other retail*	0	0	0	0	0	0	0
12	* SMEs	0	0	0	0	0	0	0
13	* Non-SMEs	0	0	0	0	0	0	0
14	Equity	0	0	0	0	0	0	0
15	**Total IRB approach**	941 538	34 632 438	572 336	32 648	0	604 984	34 968 992

16	Central governments or central banks	0	24 518 701	0	0	0	0	24 518 701
17	Regional governments or local authorities	0	288 537	0	178	0	178	288 359
18	Public sector entities	0	85 095	0	216	0	217	84 878
19	Multilateral development banks	0	176 117	0	0	0	0	176 117
20	International organizations	0	0	0	0	0	0	0
21	Institutions	0	901 507	0	0	0	0	901 506
22	Corporates	652 554	21 366 582	321 564	151 809	0	473 374	21 545 763
23	*of which: SMEs*	333 797	12 229 198	150 603	84 492	0	235 095	12 327 900
24	**Retail**	1 737 969	21 469 299	815 234	132 935	10 942	948 169	22 259 099
25	*of which: SMEs*	219 042	2 558 370	135 040	11 543	0	146 583	2 630 829
26	*Secured by mortgages on immovable property*	40 800	4 178 633	4 383	4 628	0	9 011	4 210 422
27	*of which: SMEs*	299	0	0	0	0	0	299
28	Exposures in default	2 398 123	0	994 199	96	10 799	994 295	1 403 828
29	Items associated with particularly high risk	7 600	44	7 600	0	0	7 600	44
30	Covered bonds	0	0	0	0	0	0	0
31	Claims on institutions and corporates with a short-term credit assessment	0	0	0	0	0	0	0
32	Collective investments undertakings	0	0	0	0	0	0	0
33	Equity exposures	0	199 419	0	0	0	0	199 419

34	Other exposures	0	3 293 266	1 083 913	0	0	1 083 913	2 209 353
35	**Total standarized approach**	2 398 123	72 298 567	2 228 311	285 140	10 942	2 513 450	72 183 240
36	**Total**	3 339 661	106 931 005	2 800 647	317 788	10 942	3 118 435	107 152 232
37	of which: loans	3 327 066	77 914 427	1 709 134	317 788	10 942	2 026 922	79 214 571
38	of which: debt securities	4 996	22 764 920	0	0	0	0	22 769 916
39	of which: off-balance sheet	34 154	9 578 012	19 705	33 687	10 942	53 392	9 558 774

Table 26. EU CR1-B - Credit quality of exposures by industry or conterparty types (in PLN tsd)

		Gross carrying values of		Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges of the period	Net values
		Defaulted exposures (*)	Non-defaulted exposures (*)					(a+b-c-d)
1	Agriculture, forestry and fishing	14 438	99 733	11 377	549	0	11 926	102 245
2	Mining and quarrying	955	79 608	826	252	0	1 079	79 484
3	Manufacturing	318 767	6 779 830	136 199	45 039	0	181 238	6 917 359
4	Electricity, gas, steam and air conditioning supply	501	445 100	514	6 109	0	6 622	438 979
5	Water supply	2 240	207 132	1 404	1 016	0	2 420	206 952
6	Constructiom	102 094	1 629 152	63 856	13 264	0	77 120	1 654 126
7	Wholesale and retail trade	167 011	7 050 092	100 981	46 392	0	147 373	7 069 730
8	Transport and storage	69 802	2 728 294	36 703	10 249	0	46 952	2 751 144
9	Accomodation and food service activities	30 839	188 718	13 532	1 534	0	15 066	204 491
10	Information and communication	5 342	924 655	3 764	8 009	0	11 772	918 225
11	Financial and	7 379	463 095	5 032	3 510	0	8 542	461 932

	insurance activities							
12	Real estate activities	36 095	1 173 892	5 115	10 427	0	15 542	1 194 444
13	Professional, scientific and technical activities	46 863	904 786	33 003	9 245	0	42 249	909 400
14	Administrative and support services activities	41 938	761 866	35 515	3 053	0	38 568	765 236
15	Public administration and defence, compulsory social security	0	269 789	0	179	0	179	269 611
16	Education	2 183	85 759	1 509	334	0	1 844	86 098
17	Human healyh services and social work acivities	1 608	217 769	1 231	2 205	0	3 436	215 941
18	Arts, entertainment and recreation	1 981	38 694	1 254	265	0	1 518	39 157
19	Other services	2 574	52 829	1 937	322	0	2 259	53 144
20	**Total**	**852 609**	**24 100 795**	**453 753**	**161 954**	**0**	**615 706**	**24 337 698**

Table 27. EU CR1-C - Credit quality of exposures by geography (in PLN thous.)

		Gross carrying values of		Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges of the period	Net values
		Defaulted exposures	Non-defaulted exposures					(a+b-c-d)
1	European Union (EU)	14 477	1 113 966	10 139	3 451	39	13 590	1 114 853
2	Poland	3 239 025	104 470 116	2 722 583	307 077	10 896	3 029 660	104 679 481
3	Other EU countries	32 674	602 004	25 809	4 806	0	30 615	604 063
4	Other geographical areas	53 485	744 918	42 115	2 454	8	44 569	753 834
5	Total	3 339 661	106 931 005	2 800 647	317 788	10 942	3 118 435	107 152 232

Table 28. EU CR2-A - Changes in the stock of general and specific credit risk adjustments (in PLN thous.)

		Accumulated specific credit risk adjustment	Accumulated general credit risk adjustment
1	**Opening balance**	1 763 891	
2	Increases due to amounts set aside for estimated loan losses during the period	1 195 021	
3	Decreases due to amounts reversed for estimated loan losses during the period	-754 495	
4	Decreases due to amounts taken against accumulated credit risk adjustments	-302 481	
5	Transfers between credit risk adjustments	0	
6	Impact of exchange rate differences	5 179	
7	Business combinations, including acquisitions and disposals of subsidiaries	0	
8	Other adjustments	59 560	
9	**Closing balance**	1 966 675	
10	Recoveries on credit risk adjustments recorded directly to the statement of profit or loss	36 672	
11	Specific credit risk adjustments directly recorded to the statement of profit or loss	2 035	

Table 29. EU CR2-B - Changes in the stock of defaulted and impaired loans and debt securities (in PLN thous.)

		Gross carrying values defaulted exposures
1	**Opening balance**	1 464 395
2	Loans and debt securities that have defaulted or impaired since the last reporting period	1 388 074
3	Returned to non-defaulted status	167 497
4	Amounts written off	
5	Other changes	
6	**Closing balance**	2 684 972

The Group has presented the distribution of the key receivables portfolio by the residual maturity for main exposure types: deposits and loans granted to banks and other monetary institutions (Note 22 to the Yearly Financial Report), loans and borrowings granted to customers (Note 21 to the Yearly Financial Report). (Art. 442.f).

At the same time, in the chapter "Credit risk" in the Yearly Financial Report and the Management Board Report, the Bank/Group presents a general assessment of the credit risk level and assessment of changes in this respect, along with key asset quality indicators. It also presents an assessment of concentration levels in the credit portfolio. broken down into product types and industries.

The agreed changes in the impairment and impairment charges are presented in the Notes (21) to the Yearly Financial Report. (Art. 442.i)

6.4. USE OF EXTERNAL RATINGS

When calculating requirements for own funds for entities other than financial institutions or government entities, the Group does not use ratings awarded by eligible credit assessment institutions (ECAIs). This is justified by the immaterial number of borrowers and counterparties who have a rating awarded by an ECAI. (Art. 444)

The following table presents the mapping of external ratings of each of the named ECAIs to credit quality grades featured in the unified rating Master Scale. The Group recognizes the following external rating agencies: Fitch, Moody's, Standard & Poors.

Table 30. Bank's Master Scale vs. ratings used by external rating agencies

MS risk grades	Fitch	Moody's	S&P
1	AAA	Aaa	AAA
1	AA+	Aa1	AA+
2	AA	Aa2	AA
2	AA-	Aa3	AA-
3	A+	A1	A+
3	A	A2	A
4	A-	A3	A-
5	BBB+	Baa1	BBB+
6	BBB	Baa2	BBB
7	BBB-	Baa3	BBB-

8	BB+	Ba1	BB+
9	BB	Ba2	BB
10	BB-	Ba3	BB-
11	B+	B1	B+
12	B or lower	B2 or lower	B or lower

Table EU CRD - Qualitative disclosure requirements on institution's use of external credit ratings under the astandardised approach for credit risk

Information in that chapter is disclosed according to the requirements of Table EU EU CRD – Qualitative disclosure requirements on institution's use of external credit ratings under the astandardised approach for credit risk (EBA/GL/2016/11).

6.5. ENCUMBERED ASSETS

The following information on encumered assets is presented based on Commission Delegated Regulation (EU) No 2017/2295 supplementing CRR with regard to regulatory technical standards for disclosure of encumbered and unencumbered assets.

Table 31. Encumbered assets - Template A - carrying and fair value amounts (in PLN thous.)

	Carrying amount of encumbered assets	Fair value of encumbered assets	Carrying amount of unencumbered assets	Fair value of unencumbered assets
Assets of the reporting institution	1 196 643	1 196 643	96 859 299	96 859 299
Debt securities	325 157	325 157	22 540 551	22 540 551
Of which issued by general and local governments	325 157	325 157	21 261 539	21 261 539
Other assets*	871 486	871 486	74 318 748	74 318 748
Of which: deposits in other banks and loans and advances to other banks**	345 035	345 035	439 242	439 242

** „Other assets" covers all on-balance sheet exposures excluding debt securities*
*** collateral placed in other banks regarding derivatives transactions are presented in that item as encumbered assets*

Table 32. - Encumbered assets - Template B - assets, collateral received and own debt securities (in PLN thous.)

	Fair value of encumbered collateral received or own debt securities issued	Unencumbered, fair value of collateral received or own debt securities issued available for encumbrance
Assets, collateral received and own debt securities issued	1 196 643	0

Table 33. - Encumbered assets - Template C - carrying amount of selected financial liabilities (in PLN thous.)

	Matching liabilities, contingent liabilities or securities lent	Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered
Carrying amount of selected financial liabilities	667 270	437 265
Of which: derivative transactions	576 806	346 553

Additional information (Template D)

Information presented in the templates A, B and C were presented based on the following rules:

- main sources of encumbrance were presented in the below table with data on encumbered assets as at 31 December, 2019; information in that format is disclosed in yearly financial reports with quarterly frequency,
- assets in the below table in lines 2 and 5 were not presented in templates A, B i C because they may not be linked with a specific transaction, nevertheless they may not be freely withdrawn. That approach is used by the Bank in case of fulfilling reporting requirements about unencumbered assets, according to the appendix XVII to Regulatory Technical Standards (EU) No 680/2014.

Table 34. Encumbered assets - details (in PLN thous.)

No.	Type of assets	Portfolio	Secured liability	Par value of assets	Balance sheet value of assets
1.	Treasury bonds WZ0121	Held to Collect and for Sale	Lombard credit granted to the Bank by the NBP	130 000	131 453
2.	Treasury bonds WZ0121	Held to Collect and for Sale	Securing the Fund for Protection of Funds Guaranteed as part of the Bank Guarantee Fund	358 000	362 002
3.	Central Bank bills NBP_030120	Held to Collect and for Sale	Security of payment obligation to BFG contribution - guarantee fund	51 750	51 746
4.	Central Bank bills NBP_030120	Held to Collect and for Sale	Security of payment obligation to BFG contribution - compulsory resolution fund	51 250	51 246
5.	Cash	receivables	Payment to the Security Fund OTC-KDPW_CCP	7 243	7 243
6.	Cash	receivables	Settlement on transactions concluded	1 518	1 518
7.	Deposits	Deposits in banks	Settlement on transactions concluded	345 035	345 035
8.	Leasing receivables	Loans and advances	Millennnium Leasing loans	524 932	524 932
		TOTAL		1 469 728	1 475 175

Encumbered assets of the Group presented in the above table are at the same time encumbered assets of the Bank, with exception of the position 8, which regards encumbered assets of the Bank's subsidiary.

Encumbered assets of the Group are denominated in PLN, with exception of deposits placed as a settlement of derivative transactions (point 7 of the above table), which are concluded mostly in EUR.

Additionally, as at December 31, 2019, the Group had concluded short-term transactions (usually settled within 7 days) of Treasury securities sale with a repurchase agreement, subject of securities worth PLN 90,453 thousand.

Considering values, the level of assets encumbrance of the Bank and the Group is immaterial and is not important for a model of financing of activity.

6.6. NON-PERFORMING AND FORBORNE EXPOSURES

The below tables disclose information on non-perforrming exposures, foreborne exposures and foreclosed assets, in accordance to the EBA Guidelines on disclosure of non-performing and forborne exposures from 17/12/2018 [EBA/GL/2018/10].

The Groupo disclosed the following tables in that scope:

- NPE 1 – Credit quality of forborne exposures
- NPE 3 – Credit quality of performing and non-performing exposures by past-due days
- NPE 4 – Performing and non-performing exposures and related provisions
- NPE 9 – Collateral obtained by taking possession and execution process.

As at 31 December, 2019, the Group presents the gross NPL ratio (non-performing loans in total loans) of 4.36%.

Table 35. NPE 1 – Credit quality of forborne exposures (in PLN thous.)

	Gross carrying amount/nominal amount of exposures with forbearance measures				Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		Collateral received and financial guarantees received on forborne exposures	
	Performing forborne	Non-performing forborne			On performing forborne exposures	On non-performing forborne exposures		Of which collateral and financial guarantees received on non-performing exposures with forbearance measures
			Of which defaulted	Of which impaired				
Loans and advances	220 151	1 322 568	1 039 921	1 039 921	2 375	513 692	52 009	23 089
Central banks	0	0	0	0	0	0	0	0
General governments	0	0	0	0	0	0	0	0
Credit institutions	0	0	0	0	0	0	0	0
Other financial corporations	131	1 027	1 027	1 027	1	461	0	0
Non-financial corporations	36 169	211 324	211 324	211 324	263	125 249	1 647	1 647
Households	183 851	1 110 217	827 571	827 571	2 111	387 982	50 362	21 442
Debt Securities	0	0	0	0	0	0	0	0
Loan commitments given	9 065	2 472	2 469	2 469	39	578	1 205	2
Total	**229 216**	**1 325 040**	**1 042 390**	**1 042 390**	**2 414**	**514 270**	**53 213**	**23 091**

Table 36. NPE-3 Credit quality of performing and non-performing exposures by past-due days (in PLN thous.)

	Gross carrying amount/nominal amount											
	Performing exposures			Non-performing exposures								
		Not past due or past due ≤ 30 days	Past due > 30 days ≤ 90 days		Unlikely to pay that are not past due or are past due ≤ 90 days	Past due > 90 days ≤ 180 days	Past due > 180 days ≤ 1 year	Past due > 1 year ≤ 2 years	Past due > 2 years ≤ 5 years	Past due > 5 years ≤ 7 years	Past due > 7 years	Of which defaulted
Loans and advances	68 350 986	67 957 706	368 933	3 278 340	1 548 036	254 645	326 165	359 716	565 400	174 769	49 609	2 766 298
Central banks	0	0	0	0	0	0	0	0	0	0	0	0
General governments	125 876	125 876	0	0	0	0	0	0	0	0	0	0
Credit institutions	0	0	0	0	0	0	0	0	0	0	0	0
Other financial corporations	350 160	349 949	208	7 276	3 066	77	198	797	2 938	188	13	7 276
Non-financial corporations	15 469 044	15 464 362	2 027	611 548	352 565	10 190	25 392	33 435	62 244	94 631	33 091	611 548
Of which SMEs	8 847 094	8 842 523	2 025	312 033	242 197	10 187	19 663	9 026	20 977	9 983	0	312 033
Households	52 405 905	52 017 519	366 698	2 659 517	1 192 405	244 378	300 575	325 484	500 218	79 950	16 506	2 147 475
Debt securities	22 769 916	22 769 916	0	0	0	0	0	0	0	0	0	0
Central banks	999 889	999 889	0	0	0	0	0	0	0	0	0	0
General governments	21 588 915	21 588 915	0	0	0	0	0	0	0	0	0	0
Credit institutions	176 117	176 117	0	0	0	0	0	0	0	0	0	0
Other financial corporations	0	0	0	0	0	0	0	0	0	0	0	0
Non-financial corporations	4 996	4 996	0	0	0	0	0	0	0	0	0	0
Off-balance-sheet exposures	9 578 700			33 465								32 768
Central banks	0			0								0
General governments	114 467			0								0

Credit institutions	115 000			0								0
Other financial corporations	79 544			0								0
Non-financial corporations	5 607 071			28 020								28 020
Households	3 662 618			5 445								4 748
Total	100 699 603	90 727 622	368 933	3 278 340	1 548 036	254 645	326 165	359 716	565 400	174 769	49 609	2 799 066

Table 37. NPE 4 – Performing and non-performing exposures and related provisions (in PLN thous.)

	Gross carrying amount/nominal amount						Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions						Accumulated partial write-off	Collateral and financial guarantees received	
	Performing exposures			Non-performing exposures			Performing exposures – accumulated impairment and provisions			Non-performing exposures – accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions				On performing exposures	On non-performing exposures
		Of which stage 1	Of which stage 2		Of which stage 2	Of which stage 3		Of which stage 1	Of which stage 2		Of which stage 2	Of which stage 3			
Loans and advances	68 350 986	64 810 807	3 289 193	3 278 340	46 387	2 766 298	493 199	284 086	211 016	1 533 587	2 671	1 475 742	10 942	1 234 907	58 992
Central banks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
General governments	125 876	125 876	0	0	0	0	148	148	0	0	0	0	0	0	0
Credit institutions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other financial corporations	350 160	345 790	4 370	7 276	0	7 276	2 191	1 946	245	4 729	0	4 729	0	143 272	0
Non-financial corporations	15 469 044	14 209 005	1 134 244	611 548	0	611 548	144 345	122 169	22 175	287 409	0	287 409	0	236 837	8 153
Of which SMEs	8 847 094	7 951 144	818 330	312 033	0	312 033	82 619	65 809	16 810	123 676	0	123 676	0	230 603	7 568
Households	52 405 905	50 130 137	2 150 579	2 659 517	46 387	2 147 475	346 515	159 822	188 595	1 241 449	2 671	1 183 603	10 942	854 798	50 839
Debt securities	22 769 916	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Central banks	999 889	0	0	0	0	0	0	0	0	0	0	0	0	0	0
General governments	21 588 915	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Credit institutions	176 117	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other financial corporations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Non-financial corporations	4 996	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off-balance-sheet exposures	9 578 700	9 133 384	419 768	33 465	36	32 768	9 578 700	9 133 384	419 768	33 465	36	32 768	0	44 251	41
Central banks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
General governments	114 467	114 467	0	0	0	0	114 467	114 467	0	0	0	0	0	0	0
Credit institutions	115 000	115 000	0	0	0	0	115 000	115 000	0	0	0	0	0	0	0
Other financial corporations	79 544	79 348	196	0	0	0	79 544	79 348	196	0	0	0	0	8 396	0
Non-financial corporations	5 607 071	5 298 507	308 389	28 020	0	28 020	5 607 071	5 298 507	308 389	28 020	0	28 020	0	30 793	41
Households	3 662 618	3 526 062	111 182	5 445	36	4 748	3 662 618	3 526 062	111 182	5 445	36	4 748	0	5 062	0
Total	100 699 603	73 944 191	3 708 961	3 311 806	46 423	2 799 066	10 071 899	9 417 469	630 783	1 567 052	2 707	1 508 509	10 942	1 279 158	59 033

Table 38. NPE 9 - Collateral obtained by taking possession and execution process (in PLN thous.)

	Collateral obtained by taking possession	
	Value at initial recognition	Accumulated negative changes
Property, plant and equipment (PP&E)		
Other than PP&E		
Residential immovable property		
Commercial Immovable property		
Movable property (auto, shipping, etc.)	43 570	4 189
Equity and debt instruments		
Other		
Total	43 570	4 189

7. Operational risk

The capital requirements for operational risk are calculated using the standardized approach (CRR Article 317-320). They represented about 8% of the total amount of capital requirements as at 31 December 2019. (Art. 446)

Losses stemming from operational risk events

The below table presents operational risk events registered in the operational risk database in 2019. Losses on treasury transactions concluded in 2008 and operational risk events related to credit risk, which are treated as credit risk events for the purpose of calculating credit risk capital requirements, are not included in the table.

Table 39. Operational risk events (the amount of losses), divided by events categories and kind of loss (in PLN million)

Event category	Net loss	Gross loss
Internal fraud	1.3	1.4
External fraud	0.1	0.3
Business disruption and system failures	0.2	0.3
Damage to physical assets	0.0	0.3
Execution,delivery and process management	0.1	0.1
Clients, products and business practices	0.1	0.1
TOTAL	**1.8**	**2.4**

Operational risk management system requires identification of a causes of an events and implementation of decisions or actions to reduce frequency and financial impact of events. It is completed using change of processes, strengthening of internal controls, adjustments of documentation and procedures and dedicated trainings.

In 2019 Bank Millennium Group reported no material operational risk events. i.e. those for which gross loss exceeds 10% of capital requirements for operational risk.

8. Market risk and other risk types

Table EU MRA - Qualitative disclosure requirements related to market risk

Qualitative information related to market risk are disclosed in Financial Report (chapter 8) and in Management Report, according to requirements of the Table EU MRA – Qualitative disclosure requirements related to market risk (EBA/GL/2016/11) [445 CRR].

The Group uses standardized approaches to calculate its capital requirements for various types of market risk. As at 31.12.2019 the Group maintained requirements for own funds for specific risk of debt instruments and the general interest rate risk. The exposure to market risk was not material. Capital requirements for this risk represented about less than 1% of the total amount of capital requirements as at 31 December, 2019.

Risk weighted exposure and own funds requirements to market risk are showed in the below table.

Table 40. EU MR1 - Market risk under the standardised approach (in PLN thous.)

		RWA	Capital requirements
1	Interest rate risk (general and specific)	302 494	24 200
2	Equity risk (general and specific)		
3	Foreign exchange risk		
4	Commodity risk		
	Options		
5	Simplified approach		
6	Delta-plus method		
7	Scenario approach		
8	Securitization (specific risk)		
9	**Total**	**302 494**	**24 200**

Own funds requirements to settlement risk, delivery risk, large exposures limits excess were not reported as at 31.12.2019.

Table EU MRB -Qualitative disclosure requirements for institutions using the IMA

Table EU MR2-A - Market risk under the IMA

Table EU MR2-B - RWA flow statements of market risk exposures under the IMA

Tabela EU MR3 - IMA values for trading portfolios

Tabela EU MR4 – Comparison of VaR estimates with gain/loss

Information listed in the above tables is not presented, as the Bank does not use internal models to calculate capital requirements to credit risk.

Exposures in equities not included in the trading book

As at 31 December 2019 the Group had exposures in equities not included in the trading book with total balance-sheet value of PLN 96,252 thousand. The adopted methods of valuation. balance-sheet classification and effect of measurement at fair value are presented in the table below (Art. 447).

Table 41. Exposures in equities not included in the trading book (in PLN thous.)

Balance-sheet classification	Measurement method	Balance-sheet value	Effect of pricing carried in revaluation capital
Equity instruments mandatorily at fair value through profit or loss (FVTPL)	Valuation models in case of stock and shares not quoted on the active market	66 609	0
Equity instruments at fair value through other comprehensive income (FVTOCI)	Fair value measured on the basis of active market quotations or valuation models in case of stock and shares not quoted on the active market	29 643	28 436

Below are presented the most important from the point of view of the balance sheet equity exposures of the Group as at 31 December 2019, including the assignment of strategic goals of connected with these equities:

1. Polski Standard Płatności sp. z o.o.; balance-sheet value PLN 66,609 thous. – the purpose of the equity exposure is to introduce into the Bank's offering new products and services for the Bank's customers (FVTPL)
2. Biuro Informacji Kredytowej S.A.; balance-sheet value PLN 14,201 thous. – the equity exposure is connected with the banking activity (FVTOCI);
3. Krajowa Izba Rozliczeniowa S.A.; balance-sheet value PLN 14,681 thous.- the equity exposure is connected with the banking activity (FVTOCI);
4. Giełda Papierów Wartościowych SA; balance-sheet value PLN 275 thous. – the equity exposure is connected with activity on the capital market (FVTOCI).

In the analysed period (2019) the Group:

- did not realise profit on sale of shares from the FVTOCI and mandatorily at FVTPL book,
- in calculating own funds as at 31.12.2019 the positive effect of pricing of shares (net amount with account of deferred tax) from the FVTOCI book, presented in the balance-sheet in revaluation capital was recognised in the amount of PLN 23,041 thous,
- the increase in the value of non-trading financial equities mandatorily at fair value through profit or loss results from positive evaluation of PSP shares amounted to +PLN 45 million. On 15 October 2019 the agreement on admission of a new shareholder of PSP, i.e. Mastercard was signed. Although the purchase of PSP shares has not been finalised yet, valuation was recorded based on already available market price

Exposure to interest rate risk on positions not included in the trading book

Information on exposures to interest rate risk on positions not included in the trading book are presented in the Yearly Financial Report, in the market risk management section of the financial risk management chapter (Art.448).

9. Exposure to liquidity risk

In accordance with the Regulation of the European Parliament and of the Council (EU) No. 575/2013 on prudential requirements for credit institutions and investment firms (CRR), the Group sets a liquidity coverage requirement (LCR). The net outflow coverage ratio is determined individually by each entity of the Group subject to the requirement to determine this ratio and consolidated for the Group. The minimum, supervisory level of the 100% LCR ratio, which was in force in 2019, was met by the Group on each reporting date (at the end of December 2019, the LCR ratio was 171%). The amount and main components of the net outflow coverage ratio for the Group in 2019 are presented in the below table, in accordance with the guidelines on disclosure of the net coverage ratio in addition to disclosing information on liquidity risk management pursuant to art. 435 of Regulation (EU) No 575/2013 (EBA/GL/2017/01). The data presented were designated as simple averages from observations at the end of each month in the twelve-month period preceding December 31, 2019.

The Group recognizes derivative transactions as material (the total nominal value of such transactions exceeded 10% of the net liquidity outflow of the LCR). The liquidity risk in the unfavorable market scenario results from the change in the market value of derivative instruments, which creates liquidity needs due to coverage of margins. Both in stress scenarios and in the LCR approach, this additional liquidity requirement is included as the largest absolute flow of net hedges realized over a 30-day period over 24 months.

Detailed information on the strategy, organizational model and liquidity risk management process in the Bank Millennium SA Group. presented in the Annual Financial Report, in the part concerning liquidity risk management (Art. 435).

Table 42. EU LIQ 1 Liquidity coverage requirement for Group (montly average for 2019) (in PLN million)

	Scope of consolidation (solo/consolidated)	**Total unweighted value (simple average)**	**Total weighted value (simple average)**
	Currency and units (PLN million)		
	Quarter ending on (DD Month YYY)	**31 December 2019**	**31 December 2019**
	Number of data points used in the calculation of averages	**12**	**12**
HIGH-QUALITY LIQUID ASSETS			
1	Total high-quality liquid assets (HQLA)		22 384
CASH-OUTFLOWS			
2	Retail deposits and deposits from small business customers, of which:	49 220	3 379
3	*Stable deposits*	37 348	1 867
4	*Less stable deposits*	11 872	1 511
5	Unsecured wholesale funding	15 543	7 297
6	*Operational deposits (all counterparties) and deposits in networks of cooperative banks*	0	0
7	*Non-operational deposits (all counterparties)*	15 522	7 276
8	*Unsecured debt*	22	22
9	Secured wholesale funding		0
10	Additional requirements	9 650	1 650
11	*Outflows related to derivative exposures and other collateral requirements*	666	666
12	*Outflows related to loss of funding on debt products*	0	0

13	*Credit and liquidity facilities*	8 984	984
14	Other contractual funding obligations	983	979
15	Other contingent funding obligations	722	722
16	**TOTAL CASH OUTFLOWS**		14 028
CASH-INFLOWS			
17	Secured lending (eg reverse repos)	556	18
18	Inflows from fully performing exposures	2 379	1 878
19	Other cash inflows	9	9
EU-19a	(Difference between total weighted inflows and total weighted outflows arising from transactions in third countries where there are transfer restrictions or which are denominated in non-convertible currencies)		0
EU-19b	(Excess inflows from a related specialised credit institution)		0
20	**TOTAL CASH INFLOWS**	2 944	1 905
EU-20a	***Fully exempt inflows***	0	0
EU-20b	***Inflows Subject to 90% Cap***	0	0
EU-20c	***Inflows Subject to 75% Cap***	2 944	1 905
21	**LIQUIDITY BUFFER**		**22 384**
22	**TOTAL NET CASH OUTFLOWS**		**12 123**
23	**LIQUIDITY COVERAGE RATIO (%)**		185%

Note: Information calculated as the consolidated LCR simple month-end observations over the twelve months in 2019 (EBA/GL/2017/01).

The LCR value as at 2019-12-31 was equal to 171%

10. Financial Leverage

Bank completed calculation of leverage ratio on consolidated base, as at 31 December 2019, based on CRR, Regulatory Technical Standards (EU) 2015/62 from 10 October 2014 on leverage ratio and Regulation (EU) 2017/2395 from 12 December 2017 on transitional arrangments for mitigating the impact of the introduction of IFRS 9 on own funds and the large exposures treatment of certain public sector exposures denominated in the domestic currency of any Member State.

As at 31 December 2019, the leverage ratio at the Group level was 8.11% using temporary definition of Tier 1 Capital and 8.00% using fully implemented definition of Tier 1 Capital.

When calculating leverage, the Group does not apply the derogations set forth in Articles 499.2 and 499.3 of CRR. Leverage ratio is calculated both with respect to Tier 1 capital and using the temporary definition of Tier 1 capital.

The distribution of the total exposure measure used in the leverage ratio and leverage levels as at 31 December 2019 are presented in the table below:

Table 43. Distribution of total exposure measure and leverage ratios as at 31 December 2019 (in PLN thous., in %)

The amount and distribution of total exposure used in the leverage ratio	Value
Exposure to equity financing transactions. exposure in accordance to Article 429.5 and 429.8 of CRR	205 425
Derivatives: current replacement cost	187 787
Derivatives: amount calculated with market value method	238 858
Off-balance sheet items with CCF 10% according to Article 429.10 of CRR	745 596
Off-balance sheet items with CCF 20% according to Article 429.10 of CRR	340 348
Off-balance sheet items with CCF 50% according to Article 429.10 of CRR	1 084 847
Off-balance sheet items with CCF 100% according to Article 429.10 of CRR	52 327
Other assets	98 038 512
Deducted amount of assets – Tier I Capital – fully implemented definition	-696 573

Deducted amount of assets – Tier I Capital – temporary definition	-575 870
Total exposure of leverage ratio – using fully implemented definition of Tier I Capital	100 197 127
Total exposure of leverage ratio – using temporary definition of Tier I Capital	100 317 830
Tier I Capital – fully implemented definition	8 017 836
Tier I Capital – temporary definition	8 138 540
Leverage ratio - using the fully implemented Tier 1 Capital definition	8,00%
Leverage ratio - using the temporary Tier 1 Capital definition	8,11%

The Group does not apply amounts that have been excluded from the total exposure measure in accordance with CRR 429.11.

With the Risk Strategy assumptions currently in place, the Group assesses the risk of excessive financial leverage as immaterial and therefore no specific procedures have been developed in this area.

The table below presents the leverage ratio levels in 2019. Its level is satisfactory, with a considerably excess over the value considered as safe (3%). The small drop in 2nd quarter stemmed from Eurobank incorporation.

Table 44. Leverage ratios of the Groups in quarters of 2019 (in %)

Leverage ratio	31.03.2019	30.06.2019	30.09.2019	31.12.2019
Leverage ratio - using the fully implemented Tier 1 Capital definition	9,48%	8,18%	8,14%	8,00%
Leverage ratio - using the temporary Tier 1 Capital definition	9,62%	8,31%	8,27%	8,11%

11. IRB method

Bank and Group calculate own funds requirements to credit risk with internal rating based approach (IRB) for retail exposures to individual customers secured on residential mortgages (RRE portfolio) and for retail revolving exposures (QRRE). As for other loan portfolios, IRB roll-out plan proceeds according to arrangements made with competent authorities. The exceptions are portfolios of exposures to central banks and governments, institutions, leasing and capital exposures, which are included in the permanent exclusions from the IRB approach implementation.

As at 31 December, 2019, average risk weights under IRB method are as follows:

- Total RRE portfolio: 25.4%
- RRE FX: 28.5%
- RRE PLN: 22.9%
- QRRE: 30.2%.

Information in that chapter is disclosed according to the requirements of Table EU CRE – Qualitative disclosure requirements related to IRB models (EBA/GL/2016/11).

11.1. Approval to use the IRB Approach

As at 31 December 2019, the Banco Comercial Portugues Group (the parent owner of Bank Millennium SA) has obtained the described below approvals of the competent authority pertaining to the use of the IRB Approach by the Group and Bank Millennium SA ("IRB Decisions"). First two IRB decisions were issued by Banco de Portugal (the consolidating regulator of the Banco Comercial Portugues Group) in cooperation with the Polish Financial Supervision Commission (KNF – local regulator), and the last one decisions (issued in July 2017) was issued by European Central Bank (EBC) with cooperation of KNF.

The approval issued at the end of 2012 to use the Advanced IRB Approach for two credit portfolios of: retail exposures to individual clients secured by residential property (RRE) and qualifying revolving retail exposures (QRRE). The first IRB decision contained a "regulatory floor" according to which the minimum own funds requirements for the portfolios covered by the decisions had to be temporarily maintained at no less than 80% of the relevant capital requirements calculated using the Standardized Approach. The regulatory floor applied until the relevant authority determined that the conditions set forth by this decision have been fulfilled.

The approval issued at the end of 2014 entails:

1) reduction of the "regulatory floor" for RRE and QRRE portfolios from 80% to 70% of the relevant capital requirements calculated using the Standardized Approach. The regulatory floor shall be applied portfolio by portfolio. and should be adjusted up or downwards in case of any difference between expected losses and provisions so that the impact in the solvency ratios is exactly the same of considering only 70% of the capital requirements calculated under the standard method.

2) commencement of use of the IRB Approach for the other retail exposures class is conditional upon meeting certain conditions by 30 June 2015.

3) commencement of use of the IRB Approach for corporates (including specialized lending) is conditional upon meeting certain conditions. while the new application to use the IRB Approach should not be submitted before 31 December 2016.

4) the permission to make changes to models applicable to RRE and QRRE portfolios is conditional upon meeting certain conditions. while the new application to use the IRB Approach to these portfolios should be submitted until 30 June 2015.

In July 2017 Bank received the joint supervisory decision in the area of IRB method, issued by ECB in collaboration with KNF. The decision regards:

1) revoking the duty of the Bank to maintain the regulatory floor in view of generally positive assessment of the Bank's compliance with conditions of the Decision of 2014,

2) Application of multiplier of 1.3 to estimation of LGD models for RRE and QRRE portfolios until ECB and KNF recognise the internal estimations of LGD models to be representative for currently prevailing conditions;

3) Issue additional recommendations in scope of improvement of IRB models for RRE and QRRE.

11.2. INTERNAL RATING SYSTEMS AND PROCESSES

The Group defines a rating system as all of the methods, processes, controls, data collection and IT systems that are used for the assessment of credit risk and for classification of exposures to a pool with a specified risk level, including the rules on the priority of rating models, if applicable, and the rules for overriding rating grades. Elements of the rating system include PD, LGD, CCF-EAD models (hereinafter: models) and methodologies for evaluating specialized lending.

Evaluation of the client's credit risk in respect to its probability of default (PD) is based on a uniform rating scale, referred to as the Master Scale.

The Master Scale (MS) consists of 15 rating grades, where the given ratings are as follows:

1) Maximum security – only for sovereigns
2) Superior quality
3) Very high quality
4) High quality
5) Very good quality
6) Good quality
7) Average high quality
8) Average quality
9) Average low quality
10) Low quality
11) Very low quality
12) Restricted crediting
13) Soft signs of impairment
14) Strong signs of impairment
15) Default.

Ratings 13 – 15 are procedural ones, reserved to exposures with deteriorated quality.

All the clients with available lending, whether or not they actually use the approved credit limits and all other participants of credit transactions should have a previously awarded rating and should be assigned to an appropriate pool.

An adequate credit or rating policy should specify the model to be used for rating purposes or a homogenous pool for a given client segment.

Each PD model used must be calibrated to MS based on the observed or estimated probability of default.

The rating for governments, central banks, international organizations, multilateral development banks and Institutions may be assigned based on a rating awarded by recognized rating agencies, mapped to the Master Scale.

Should the above-mentioned entities have more than one classification awarded by recognized rating agencies (split rating) the rating corresponding to the second best risk shall be taken into account at all times.

The table showing relationships between internal and external risk grades is presented in chapter 6.4 of the Disclosures. The Bank recognizes the following external rating agencies for comparison purposes: Fitch, Moody's, Standard & Poor's.

In case of retail customers, rating awarded through a behavioral model (behavioral rating) by default takes precedence over a rating awarded through an application model (application rating) if behavioral rating only is awarded. In case of corporate customers, awarded rating comes from 3 components: quantitative module based on an analysis of data from financial statements, module of qualitative evaluation of customers based on non-financial information and behavioral module assessing existing nature of co-operation between customer and Millennium Bank Group (including Bank Millennium).

Procedural ratings (13, 14 and 15 according to the Master Scale) are awarded to clients showing signs of deteriorating borrowing capacity and creditworthiness or with overdue debt.

Procedural ratings by default take precedence over application ratings.

After the pre-conditions necessary to award any of the procedural ratings are no longer satisfied, ratings 13 and 14 expire immediately, while rating 15 either expires or is maintained for a "quarantine period".

Description of the internal ratings process

1. Central governments and central banks

This exposure class is excluded permanently from the IRB approach.

2. Institutions

This exposure class is excluded permanently from the IRB approach.

3. Corporates, including SMEs, specialized lending and purchased corporate receivables

Exposure classes subject to the plan of gradual implementation of the IRB approach.

4. Retail exposures

- PD models

The rating process in Bank Millennium is based on the following principles:

i. Awarding risk grades to all customers and credit exposures;
ii. All credit decisions should be preceded by awarding a risk grade to the client;
iii. In the retail segment. the rating process is based on PD scoring/rating models;
iv. The rating process is separated and independent from the credit decision process.

The presented rating principles apply to all categories of retail exposures: retail exposures to individuals secured by residential real estate, qualifying revolving retail exposures and other retail exposures.
The class of retail exposures to individuals secured by residential real estate include exposures which are mortgage loans or home equity loans granted to retail clients (small businesses and private individuals) and secured by mortgage.

The class of qualifying revolving retail exposures includes exposures to natural persons which are unsecured, renewable, with total exposure not exceeding EUR 100.000 and which meet the requirement of low volatility of loss rates.

All the retail exposures that do not qualify to the above categories are treated as other retail exposures.

In the rating process, the powers are allocated as follows:

a) Data input;
b) Verification of data;
c) Awarding of the final risk grade (automated decision).

Model-based risk grades and procedural ratings are awarded automatically and are not subject to expert adjustments.

In the rating process, the Bank uses data from various available sources:

- internal sources (Bank's IT systems);
- external sources (Biuro Informacji Kredytowej S.A.);
- data received from customers.

With respect to probability of default (PD) models for retail exposures, there is a rating system in place for microbusinesses and a rating system for private individuals. Both systems use behavioral scoring models and application scoring models designed for specific client and/or product groups. Procedural ratings are awarded to clients showing signs of deteriorating borrowing capacity and creditworthiness or with past due debt.

A procedural rating has the priority in use. If the client has no procedural rating then the behavioral rating should be used, provided that it has been awarded.

Behavioral rating is awarded for the first time after three months of the client's cooperation with the Bank and then monthly, provided that the client's accounts meet the requirements of the behavioral model.

If the client has no behavioral or procedural rating then the application rating should be used.

- LGD models

Loss Given Default (LGD) models have been built for the following two portfolios:

a) unsecured portfolio for retail clients.
b) portfolio secured by residential real estate for retail clients.

Pursuant to CRR, and its subsequent amendments, banks must estimate LGD parameters using data on defaulted exposures from all the available sources, taking into account all information that is significant for the estimation of economic loss levels.

Accordingly, the Bank has estimated LGD parameters using a database that contains all the defaults resulting from quantitative and qualitative premises included in default definitions.

According to the LGD calculation methodology, the main factors in the calculation include: probability of cure or completion of the client recovery process, value of recoveries, costs and discount rate.

The Bank has taken the following approach to building LGD models:

a) Establish homogenous risk pools of transactions;
b) Estimate the probability of different paths from the default status (cure, incomplete, liquidated);
c) Estimate loss parameters for each path of cure from default.

Loss given default is estimated on transaction level.

- Exposure at Default (EAD) models / CCF models

An EAD model has been built for retail portfolio exposures. When estimating EAD, exposure at default was compared to the value of the limit and the book value of the exposure observed one year before the default event. Credit Conversion Factor (CCF) parameters have been calculated for product groups for which an off-balance sheet exposure could occur and where the Bank had a significant number of observations that enabled statistical conclusions to be drawn. i.e. for overdraft limits and for credit cards. In case of guarantees, where the number of observations was too low to carry out statistical analyses, a conservative CCF value was used. No EAD model was developed for the RRE portfolio due to immaterial number of observations. For RRE segment conservative CCF parameter was also used.

5. Equity exposures

In equity exposures, the Millennium Group classifies shares and equity instruments held by any of the Bank's units. On the consolidated basis, however, the shares representing investments in subsidiaries are excluded, since those are classified as intragroup transactions. However, due to the fact that the total value of the Group's equity portfolio is insignificant, it has been decided that these exposures should be excluded from the IRB approach permanently and the capital requirement for these exposures should be calculated based on the standardized approach.

6. Exposure values and adjustments

The below table presents the basic aggregates and parameters used in calculation of own funds requirements in IRB method. As for exposure classes under IRB method, exposure amounts, CCF’s, average PD’s, debtors amount, average LGD’s, risk-weighted assets, risk density, expected loss and specific credit risk adjustments, break downed by probability of default (PD) brackets are showed.

Table 45. EU CR6 - IRB approach - Credit risk exposures by exposure class and PD range (in %, in PLN thous.)

Segmento	PD scale	Original on-balance-sheet gross exposures	Off-balance-sheet exposures pre-CCF	Average CCF	EAD post CRM and post CCF	Average PD	Number of obligors	Average LGD	RWAs	RWA density	EL	Value adjustments and provisions
QRRE	0,00 do <0,15	368 379	1 661 965	64,30%	1 437 005	0,08%	257 096	62,35%	47 442	3,30%	717	2 655
QRRE	0,15 do <0,25	181 026	294 363	72,65%	394 886	0,19%	64 331	63,19%	27 238	6,90%	480	2 482
QRRE	0,25 to <0,50	179 435	193 319	75,63%	325 637	0,39%	47 397	63,97%	40 434	12,42%	812	2 712
QRRE	0,50 to <0,75	183 535	144 243	77,40%	295 178	0,71%	39 853	64,60%	59 391	20,12%	1 354	2 972
QRRE	0,75 to <2,50	338 253	177 991	80,60%	481 721	1,70%	61 529	65,06%	188 133	39,05%	5 346	6 495
QRRE	2,50 to <10,00	320 166	88 382	81,98%	392 619	5,95%	50 638	65,47%	361 943	92,19%	15 293	10 560
QRRE	10,00 to <100,00	162 171	17 335	78,97%	175 861	22,91%	22 177	65,92%	301 139	171,24 %	26 532	9 795
QRRE	100,00 (default)	104 507	5 656	0,00%	104 507	100,00 %	15 225	90,67%	65 174	62,36%	94 755	56 566
QRRE	Razem	1 837 472	2 583 255	68,52%	3 607 414	5,03%	558 246	64,47%	1 090 894	30,24%	145 290	94 238
Residential Retail	0,00 do <0,15	18 692 802	485 205	100,00 %	19 178 007	0,08%	96 055	31,67%	1 287 409	6,71%	4 859	9 670
Residential Retail	0,15 do <0,25	3 407 193	58 102	100,00 %	3 465 295	0,19%	13 786	32,40%	454 361	13,11%	2 116	4 160
Residential Retail	0,25 to <0,50	2 031 209	30 267	100,00 %	2 061 476	0,39%	8 053	32,63%	465 800	22,60%	2 624	4 529
Residential Retail	0,50 to <0,75	1 578 213	18 100	100,00 %	1 596 314	0,71%	6 148	32,53%	547 212	34,28%	3 687	5 423
Residential Retail	0,75 to <2,50	2 295 540	31 561	100,00 %	2 327 101	1,67%	8 122	32,91%	1 398 088	60,08%	12 777	18 093
Residential Retail	2,50 to <10,00	1 294 589	17 105	100,00 %	1 311 694	5,61%	4 192	33,09%	1 556 412	118,66 %	24 289	26 619
Residential Retail	10,00 to <100,00	381 306	4 525	100,00 %	385 831	25,76%	1 243	33,04%	726 060	188,18 %	33 347	16 697
Residential Retail	100,00 (default)	835 198	57	100,00 %	835 256	100,00 %	2 949	83,46%	1 466 333	175,55 %	697 101	394 672
Residential Retail	Razem	30 516 051	644 923	100,00 %	31 160 974	3,49%	140 548	33,42%	7 901 675	25,36%	780 800	479 864
Total	Razem	32 353 522	3 228 178	74,81%	34 768 387	3,65%	643 512	36,64%	8 992 569	25,86%	926 089	574 102

7. Drivers that impacted on the loss experience, in conjunction with the actual results in a longer term

The following table presents a historical backtesting of PD as for exposures' classes.

Table 46. EU CR9 - IRB approach - Backtesting of PD per exposure class

Exposure class	PD range	Weighted average PD	Arithmetic average PD by obligors	Number of obligors		Defaulted obligors in the year	Of which new obligors	Average historical annual default rate
				End of previous year	End of the year			
QRRE	<0,06% - 0,12%)	0,08%	0,08%	168 026	256 497	82	2	0,04%
QRRE	<0,12% - 0,18%)	0,15%	0,15%	31 797	31 455	60	2	0,12%
QRRE	<0,18% - 0,28%)	0,23%	0,23%	38 924	32 783	73	2	0,16%
QRRE	<0,28% - 0,53%)	0,39%	0,39%	59 770	47 324	224	12	0,32%
QRRE	<0,53% - 0,95%)	0,71%	0,71%	58 781	39 649	376	17	0,61%
QRRE	<0,95% - 1,73%)	1,28%	1,28%	51 900	35 372	591	30	1,01%
QRRE	<1,73% - 2,94%)	2,25%	2,25%	27 437	26 057	446	45	1,68%
QRRE	<2,94% - 4,90%)	3,80%	3,80%	18 437	21 483	501	80	2,52%
QRRE	<4,90% - 7,60%)	6,10%	6,10%	12 707	15 201	450	82	3,56%
QRRE	<7,60% - 12%)	9,55%	9,55%	6 669	11 598	342	93	4,92%
QRRE	<12% - 20%)	15,63%	15,49%	7 581	15 354	699	51	9,13%
QRRE	<20% - 100%)	76,74%	40,48%	10 069	6 797	3 056	48	31,62%
Residential Retail	<0,06% - 0,12%)	0,08%	0,08%	80 704	96 055	18	0	0,04%
Residential Retail	<0,12% - 0,18%)	0,15%	0,15%	10 152	7 268	8	0	0,09%
Residential Retail	<0,18% - 0,28%)	0,23%	0,23%	6 116	6 519	9	0	0,17%
Residential Retail	<0,28% - 0,53%)	0,39%	0,39%	8 468	8 053	20	0	0,26%
Residential Retail	<0,53% - 0,95%)	0,71%	0,71%	7 410	6 148	25	0	0,38%
Residential Retail	<0,95% - 1,73%)	1,28%	1,28%	5 088	4 963	24	0	0,63%
Residential Retail	<1,73% - 2,94%)	2,25%	2,25%	3 279	3 160	30	0	1,10%
Residential Retail	<2,94% - 4,90%)	3,80%	3,80%	2 331	2 189	28	0	1,46%

Residential Retail	<4,90% - 7,60%)	6,10%	6,10%	1 386	1 179	22	0	2,36%
Residential Retail	<7,60% - 12%)	9,55%	9,55%	737	815	25	0	4,48%
Residential Retail	<12% - 20%)	16,49%	16,49%	2 471	578	201	0	9,13%
Residential Retail	<20% - 100%)	59,01%	59,01%	152	665	77	0	51,71%

Comparison of actual and modeled PD

The tables below present the calculation of actual default rates and estimated default rates for portfolios covered by the permission to use the IRB approach.

Table 47. Actual and estimated default rates for the QRRE portfolio (in %)

Term	Estimated default rate	Actual default rate
2014	2.68%	1.99%
2015	2.69%	1.82%
2016	2.47%	1.59%
2017	2.27%	1.45%
2018	2.01%	1.43%
2019	1.95%	1.40%

Table 48. Actual and estimated default rates for the portfolio of loans secured by residential property (in %)

Term	Estimated default rate	Actual default rate
2014	0.78%	0.48%
2015	0.82%	0.55%
2016	0.88%	0.60%
2017	0.91%	0.53%
2018	0.82%	0.43%
2019	0.83%	0.38%

In case of QRRE portfolio, one may observe a further decrease (although lower than previous years) of actual default rates in last years. They are lower than estimated. The observed decrease in actual default rates in recent years is consistent with the observed market trends and may be explained by the following stable macroeconomic situation.

In case of RRE portfolio, actual default rates are lower than in the last year. They are lower than estimated as well. That decrease stems from good macroeconomic situation, as well as a falling share loans denominated in foreign currencies (mostly CHF). As for the latter, the observed risk is higher than as for PLN loans.

In case of both portfolios, the actual default rates were also lower than the average probability of default (PD) mainly because of consideration in estimation of long-term PD an additional conservative buffer, connected with estimation errors, that increases PD values.

Comparison of actual and modeled CCF

The analysis of actual CCF has been conducted for QRRE portfolio cases defaulted during the calendar year 2019 (reporting period) as well as defaults from 2017 and 2016 (comparative periods) which at the end of the preceding year (31 December 2018 in case of the reporting period) were not defaulted and had a positive off-balance sheet exposure. The analysis involved a comparison of the average actual conversion factors with average modeled levels (weighted by the amount of off-balance sheet exposure). The modeled factors include a number of conservative haircuts and should be higher than the actual figures. The results are presented in the table below.

Table 49. Comparison of actual and modeled CCF (in %)

CCF	2019	2018	2017
Modelled CCF	96.30%	89.00%	91.30%
Actual CCF	53.57%	55.80%	57.20%

In both the reporting period and the comparative periods, actual CCF levels did not exceed the modeled levels. Since the Bank has not recorded higher than expected credit conversion factors, this credit risk element does not lead to the occurrence of higher than expected losses.

Comparison of actual and modeled LGD

The analysis of actual LGD was carried out for cases from RRE and QRRE portfolios. Calculation of actual LGD figures requires a longer time horizon, because recoveries may occur only after the exposure achieves the default status. Accordingly, the calculation of actual LGDs was based on the cases, which defaulted at the latest in December 2016. The average LGD calculated on the basis of these cases (EAD-weighted average) was compared with the average LGD level used for the purpose of IRB capital requirements calculation (EAD weighted). The model values include a number of conservative haircuts (including an additional multiplier imposed by regulators in the IRB decision from July 2017 on approval of changed LGD models for RRE and QRRE portfolios) and should be higher than the actual losses. The results are presented in the table below.

Table 50. Comparison of actual and modeled LGD (in %)

LGD	Portfolio	
	RRE	QRRE
Actual LGD	28,54%	51.12%
Modelled LGD	38,53%	69.25%

For both analyzed portfolios, modeled loss amounts were much higher than actual figures. We can therefore state that there were no unexpected losses associated with LGD levels and the parameters used have proven to be sufficiently conservative.

The Group does not have companies conducting credit activity abroad (CRR 452.j),

Table EU CR10 - IRB (specialised lending and equities)

Considering that the Group does not use IRB method for specialised lending and equities, Table EU CR10 (EBA/GL/2016/11) is not presented.

Table EU CR7 - IRB approach - Effect on the RWAs of credit derivatives used as CRM techniques

Considering that the Group does not use credit derivatives as CRM techniques, Table EU CR7 (EBA/GL/2016/11) is not presented.

11.3. USE OF INTERNAL ESTIMATES

The Group acts in accordance with the IRB principles for the application of "use test" criteria. This means that the risk parameters used to calculate capital requirements for credit risk are also the parameters that are used for other internal purposes, in particular in the risk management process. Internal rating or internal loss estimation models play a major role in the risk management process and in the decision process at different risk management levels. i.e. for the purposes of defining the Bank's credit risk strategy, for approving and monitoring credit risk and for allocating economic capital.

The Group has many years of experience in using internal rating models. since individual rating systems have been used to evaluate client risk since the 1990s. Ever since that time, the methodologies have been developed, improved and, to an increasing extent, incorporated in business processes, thus boosting risk management "culture" and awareness in the management process.

- Management information system

Internal estimates are used broadly in the management information system in the areas of risk and operating activity. The individual management levels (Supervisory Board, Management Board, specialized committees) receive detailed information about exposure to individual risks types and about the risk profile. including estimated risk parameters. This allows for effective risk management.

- Risk Appetite

Internal estimates have been used to determine the "risk appetite" of the Bank and the Bank Millennium Group. The risk tolerance incorporates measures, buffers and quantitative limits which, along with qualitative guidelines on managing individual risk types, determine the Bank's propensity for risk. Risk parameters are also an important element of the risk strategy being pursued, which includes objectives and guidelines for managing different risk types.

- Concentration limits

In the area of credit concentration risk and risk of significant exposures, internal estimates have been used to develop exposure limits for individual segments of the credit portfolio. For this purpose, a risk level calculated using risk parameters is compared to the available financial resources, which may be used to secure the risk, including a buffer for a potential increase in risk.

- Decision-making powers

Credit decision-making powers are an important area where internal estimates are applied. The amounts of decision-making powers rely on the client's MS risk grade and the total exposure to its economic group.

- Evaluation of borrowing capacity and creditworthiness

Internal estimates affect significantly the evaluation of the client's borrowing capacity and creditworthiness. The rating ist taken into consideration through verification of "cut-off point" criteria which determine the maximum acceptable rating depending on segment/product. Adittionally in the case of retail clients rating influences calculation of the client's credit limit.

- Loan prices and pricing policy

Risk parameters are also used for pricing credit transactions, by reflecting the cost of risk in the price.

- Economic capital

Credit and market risk parameters are used as one of the elements that allow the Bank to calculate economic capital corresponding to the risk. Economic capital in turn is used to evaluate the safety of operations, to allocate and reallocate capital to business lines, to evaluate risk-based efficiency and to determine concentration limits.

11.4. CREDIT RISK MITIGATION

Table EU CRC – Qualitative disclosure requirements related to CRM techniques (art. 453.a,e)

Information in that chapter is disclosed according to the requirements of Table EU CRC – Qualitative disclosure requirements related to CRM techniques (EBA/GL/2016/11).

The main criterion considered in Bank when making a decision to provide financing on specific terms is the evaluation whether the client has capacity to service and repay the financing on a timely basis without a need to realize the collateral. Collateral is accepted to reduce credit risk incurred by the Group if the client fails to make the payments in contractual amounts and on contractual dates. Accordingly, the requirements for accepted collateral should correspond to the credit risk incurred by the Group in connection with the specific client, while taking into account the specific features of each individual financing transaction. Additionally, in the case of loans to finance real property (in particular retail mortgage loans), establishing collateral on the property is a mandatory element of the credit product.

The Group's collateral policy defines the principles governing the types, kinds and legal forms of collateral, the rules for valuating collateral and the requirements to be satisfied when collateral is accepted, the rules of measuring and monitoring collateral.

The list of collateral types accepted by the Group is long and includes financial security, mortgage, material collateral, guarantees, sureties and receivables. The accepted collateral types have been described in detail and the Group has also defined the terms relating to features of individual asset types on which they can be accepted as collateral. The Group has also defined a list of acceptable legal forms of collateral, taking into account the risk associated with the probability that the collateral might be lost, in particular upon bankruptcy of client or restructuring proceedings or enforced debt collection against the client.

The Group has defined the rules for measuring the value of assets accepted as collateral.

For financial collateral, its value is determined on the basis of current market valuation of the asset, less relevant haircuts, including price volatility haircuts.

Mortgage collateral is valued on the basis of valuations prepared by expert appraisers verified by the Group’s specialized units. As the value of collateral of retail loans is monitored during their service, the collateral amount is revaluated using the statistical method based on real property price indices.

For physical collateral, valuation depends on the type, unit value of the asset and age of the asset - the valuation is performed on the basis of the estimated market price determined by the Group’s specialized units or based on insurance / book value in the case of low-value assets.

In each case, the units performing the valuations/verifying the valuations are separate from sales units.

Depending on the type and kind of collateral items, the Bank monitors them in order to:

- ensure that the contractual terms of collateral are satisfied, which includes confirmation of legal certainty,
- update the value of collateral,
- verify that the collateral exists (local visits).

The Group uses as well a range of supplementary collateral to facilitate enforcement or increase probability of achieving repayment from a given collateral type.

Use of credit risk mitigation techniques

The Group does not make use of on- and off-balance sheet netting (CRR 453.a).

Policies and processes for collateral valuation and management

In the collateral management area, the Group applies the approach, in which collateral is used to ensure that the Group receives the repayment of principal, interest, commissions and fees if the client fails to make the payments in contractual amounts and on contractual dates. However the main source for the repayment of receivables is always the borrower's income/revenues including the funded project. Collateral should correspond to the credit risk incurred by the Bank, while taking into account the specific features of each individual credit transaction.

Legal collateral is applicable until all the amounts due to the Group under the collateralized credit transaction are repaid. The validity date or maturity date of collateral should not be earlier than the date of total repayment of the secured credit transaction.

Real estate collateral (revaluation)

In respect to the valuation of loan collateral in the largest credit portfolio, i.e. residential retail loans, the loan application review process must include in each case a valuation of the real estate securing the loan performed by an expert appraiser.

The Group monitors collateral in order to:

- update the base value of the collateral,
- ensure that the chosen contractual terms of collateral are satisfied,
- verify that the collateral exists (local visits).

The base value of mortgage collateral may be updated using one of the following forms:

- assessment of the value of the real estate, understood as the Group's estimation of the current value of the real estate collateralizing the credit transaction, based on the methodologies used by the Bank or on an analysis of the real estate market analysis on the date of the assessment (not applicable to commercial real estate),
- valuation by an expert appraiser.

Update of the base value of financial collateral

In the case of financial collateral classified as "participation units in mutual funds sold by Bank Group entities and managed by Millennium TFI", their base value is updated daily.

Update of the base value of material collateral

The base value of material collateral should be updated, when based on a local vision, a material amortization of collateral, collateral deficiency or lack of collateral will be reported. The value of material collateral is assessed once a 12 months.

The table below presents the types, kinds and legal forms of collateral accepted by the Bank. The collateral acceptance process is regulated by special procedures. Other collateral types may be accepted if they meet certain specified requirements (CRR 453.c).

Table 51. Types and kinds of collateral used by the Group

Type	Kind	Legal form
Financial	Term deposit in the Bank in PLN/foreign currency with a 100% principal guarantee	Ownership transfer
	Superduet Deposit in PLN/foreign currency with a 100% principal guarantee in the deposit part	For a deposit: - Ownership transfer For participation units in mutual funds: Registered pledge (ultimately) and Ordinary pledge (as temporary collateral)
	Prestige Investment Program in PLN/foreign currency	Transfer of receivables.
	Guarantee policy	Transfer of receivables
	Megazysk insurance agreement	Transfer of receivables
	Term deposit in another bank in PLN/foreign currency with a 100% principal guarantee	Transfer of receivables Registered pledge (ultimately) and Ordinary pledge (as temporary collateral)
	Participation units in mutual funds. being in sale by entities belonging to the Group. managed by Millennium TFI, ING TFI, Investors, Esaliens TFI	Registered pledge (ultimately) and Ordinary pledge (as temporary collateral)
	WSE-listed shares included in WIG 20 stock index. deposited in Millennium Brokerage House	Ownership transfer Registered pledge (ultimately) and Ordinary pledge (as temporary collateral)

		Ordinary pledge
	Treasury bills deposited in the Bank	Ownership transfer
		Registered pledge (ultimately) and Ordinary pledge (as temporary collateral)
		Ordinary pledge
	Dematerialized State Treasury bonds admitted to organized trading. deposited in the Bank or in Millennium Brokerage House	Registered pledge (ultimately) and Ordinary pledge (as temporary collateral)
		Ordinary pledge
Mortgage	Residential real estate (used by an owner to inhabitancy or to rent excluding business activity: residential flats, housing buildings, grounds with a purpose of building of the above immovable)	Mortgage and
	Commercial real estate (offices. storage space. stores. service facilities. hotels. with a purpose of sale or rent in the course of business activity. residential flats. housing buildings one- or multi families grounds with a purpose of building of the above immovable other grounds)	Registered pledge and Ownership transfer (conditionally) - if collateral is established on parts of real property [e.g. devices. specialized equipment. machinery. production lines permanently connected to land or to a building which. if dismantled. will compromise the building's structure or materially reduce the value of collateral being dismantled (e.g. utilities. elevators)]
Material	Vehicles. including cars. construction equipment built on car chassis. other vehicles (e.g. semi-trailers and trailers and truck tractors)	Registered pledge and ownership transfer (conditional)
		Registered pledge for future collateral and ownership transfer (conditional)
	Fleet consisting of cars	Registered pledge and ownership transfer (conditional)
	Independent specialized hardware and machinery	Registered pledge and ownership transfer (conditional)
		Ownership transfer
	Production lines	Registered pledge and ownership transfer (conditional)
		Ownership transfer
	Collection of fixed assets including specialized equipment and machinery	Registered pledge and ownership transfer (conditional)
	Airplanes. helicopters. boat/ship	Registered pledge and ownership transfer (conditional)

	Inventory	Registered pledge and ownership transfer (conditional)
Receivables	Receivables under contracts pertaining to the client's business activity and lease.	Assignment of contractual receivables
	Receivables from permanent cooperation with specified business partners	Assignment of receivables from permanent cooperation with specified business partners
Guarantees and sureties	Bank guarantee	Bank guarantee
	Surety	Surety under Civil Law
		Promissory note surety

The Group does not use any guarantees and credit derivatives as risk protection instruments in the capital requirement calculation process. (CRR 453.d)

The Group notices concentration related to credit risk mitigation with respect to collaterals for loans in the form of a mortgage. The main risk factor associated with this protection are:

1) an increase in the exchange rate of CHF / PLN.
2) a decrease in the value of mortgage.

Both of these factors contribute to increase of average LTV ratio (the ratio of loan to value of collateral) and the resulting increase in the value of loans. where the value of the LTV is greater than 100% and a deterioration of capital adequacy. The first risk factor increases the DTI ratio (the ratio of debt-to-income for a customer) and it leads also to deterioration of liquidity.

The Group identifies, measures, monitors and controls continuously above risk factors. Conservative liquidity strategy is used, which provides for the maintenance of liquid assets buffer for unexpected changes in exchange rates. Capital plan provides for the maintenance of capital adequacy at a satisfactory level in the coming years. Both plans - Liquidity and Capital – account for stress tests assuming a significant appreciation of the exchange rate of CHF / PLN. The level of non-performing loans is regularly monitored and in case of potential problems with debt repayment customer is contacted in order to apply the right solution, suitable to his financial capability. The quality of loans secured by real estate remains at a high level. (CRR 453.e)

Group does use own estimates of LGD or conversion factors for exposures under the current IRB approval, and not as for portfolios under IRB roll-out plan, own estimates of the above parameters will be used. Therefore information defined in CRR art. 453.f are not presented.

Group does not use guarantees or credit derivatives as credit risk mitigation instruments by calculation of risk-weighted exposure amounts (CRR art. 453.g).

Table 52. EU CR3 - CRM techniques - Overview (in PLN thous.)

		Exposures unsecured - Carrying amount	Exposures to be secured	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
1	Total loans	49 398 640	29 815 931	28 490 623	1 325 307	0
2	Total debt securities	22 769 916	0	0	0	0
3	**Total exposures**	72 168 556	29 815 931	28 490 623	1 325 307	0
4	Of which defaulted	1 432 415	416 559	355 664	60 895	0

Group does not use Advanced Measurement Approaches to operational risk. (CRR art. 454).

Group does not use Internal Market Risk Models (CRR art. 455).

11.5. RATING SYSTEMS CONTROL AND REVIEW

The Group has implemented the principle of strict separation of commercial functions generating credit risk (which are performed in the Business Area) and client risk and exposure evaluation functions (which are performed by units in the Risk Area). In the area of retail exposures, the final risk grade (rating) is awarded automatically. In respect to corporate exposures, risk grades are awarded to clients and changed when necessary during their term by the specialized Ratings Department.
Management of rating models, including the performance of control functions, is regulated in internal procedures pertaining to model development, model calibration and model monitoring. Responsibility for these actions has been assigned to designated model owners.
In order to ensure the appropriate control and review of the rating systems (adequate estimation of risk parameters and correct course of the rating and credit decision process), a validation and monitoring process has been introduced.
The monitoring process is performed by the unit responsible for model development.
The validation process is performed by a unit independent from the organizational units responsible for model development.

The following units handle the monitoring and validation process:

- The Risk Committee, which has general responsibility for risk control;
- The Bank's Validation Committee which is responsible for confirming the results risk models validation and for continuing the implementation of the measures prescribed by the Model Validation Bureau. Validation results are then ratified by the Risk Committee;
- The Model Validation Bureau, which is responsible for qualitative and quantitative analyses, model validation independent from model development, development of model

validation and monitoring methodologies, preparation of reports for the Validation Committee;

- Model Owners and Rating System Owners responsible for the development function which involves the following: new model development, recalibration of existing models, management of factors affecting the use of a model, implementation of Validation Committee recommendations on its own and in cooperation with the IT team.

Reports and recommendations from model monitoring are approved by the Head of the Risk Department.

Reports and recommendations of the Model Validation Bureau are approved by the Validation Committee.

The Chairman of the Validation Committee is obligated to submit to the Risk Committee and, if necessary, to other committees responsible for controlling credit risk, requests from the Validation Committee regarding all the credit risk models and rating systems and the implementation status of corrective action, if any.

The Bank stores the documentation of implemented models, rating systems, monitoring and validation reports and the methodologies used to prepare monitoring and validation reports; minutes on decisions made by the Validation Committee and the Risk Committee.

In addition, the Internal Audit Department shall review rating systems according to the annual Audit Plans approved by the Supervisory Board. These include the credit area, in particular issues of risk parameters estimation: PD, LGD, CCF and expected loss EL. The reviews are carried out based on the Audit Charter and the Audit Manual approved by the Audit Committee of the Supervisory Board. Research is carried out on the basis of specialist audit programs.

12. Remuneration and recruitment policy

12.1. Recruitment policy

The Bank adopted the document "The Policy of selection and assessment of suitability of Members of the Management Board and Supervisory Board of Bank Millennium and persons performing key functions in the Bank Millennium SA Group", that was amended on the 18th July, 2019. The amendment ensured compliance of the provisions of the Policy with the law, and in particular clarified the method of assessing the suitability of persons subject to the Policy used in the Bank Millennium Group.

This policy provides that persons performing functions in the management bodies have the appropriate professional qualifications and proper reputation. Persons performing functions in management bodies must have a good reputation and be qualified according to the profile of the function they perform and the size of the area they manage.

The body responsible for assessing the qualifications of the Bank's Management Board Members is the Personnel Committee at the Bank's Supervisory Board.

The assessment of the qualifications of the Members of the Managing Body is based on the criteria in art. 22aa of the Banking Act of 29 August 1997 (Journal of Laws of 2018, item 2187 as amended) and in the EBA and ESMA Guidelines on the suitability of members of the management body and persons performing the most important functions of March 21, 2018 (EBA/GL/2017/12).

The following criteria covering experience and reputation are used in the qualification assessment process:

- level and profile of acquired education and training and their relationship with banking or financial services,
- practical experience related to financial markets, regulatory requirements, planning, understanding and implementation of business strategy, risk management, ability to establish an effective management system, supervision and control in a financial institution, ability to interpret financial information of a credit institution,
- period of employment in a managerial position, scope of competence in these positions, type and complexity of subordinate structures and number of subordinates,
- reputation, honesty and ethics, i.e. all data that may testify to an unblemished opinion in personal and professional life, including data from criminal records or other administrative records, as well as data on the financial condition, e.g. financial and business results of entities owned by the Member or managed by him or entities in which he had significant shares,

In addition, information is included to assess the independence of Members of the Managing Body, in particular, past and present positions, personal, professional or business relationships with Members of the Managing Body or shareholders with a controlling interest, and the ability to allocate sufficient time for tasks related to managing a credit institution. The composition of the Managing Body must jointly have practical experience related to credit institutions. Information on the members of the Managing Body can be found in the Report of the Management Board on the activities of Bank Millennium.

12.2. DECISION-MAKING PROCESSES REGARDING REMUNERATION POLICY

The "Employee remuneration policy in the Bank Millennium Group" was developed on the ground of assumptions regarding the remuneration of employees in the Bank Millennium Group referring to management system and internal control rules employed in the Bank. “Employee remuneration policy in the Bank Millennium Group” was supplemented by the “Rules of granting and payment of variable remuneration for Board Members of Bank Millennium SA” and “Rules for granting and payment of variable components of remuneration for persons taking risks in the Bank Millennium Group - excluding Members of the Management Board of the Bank Millennium SA". "Policy" and "Rules" were developed by a project team set up for this purpose composed of experts in the field of HR, banking and labor law, risk management and compliance.

On August 27, 2019, the General Meeting of Shareholders established an incentive program for rewarding entitled persons who have a material impact on the risk profile ("Risk Takers") in the Group and authorized the Supervisory Board to adopt, within 4 months from the date of the General Meeting of Shareholders, the Regulations specifying the detailed rules and terms of implementation of the Incentive Program, including the specification of detailed conditions for granting, offering, retaining and issuing Own Shares (the "Regulations").

The draft Regulations of the incentive program and modified rules for granting variable remuneration presented in "Remuneration policy with respect to Risk Takers in the Bank Millennium S.A. Group" were consulted with the members of the Personnel Committee of the Supervisory Board. Proposal of documents were recommended by this body for submission to the Supervisory Board.

On November 29, 2019, the Supervisory Board by resolution no 25/2019 and no 26/2019 has approved the remuneration policy and incentive program by-laws. The principles set out in these documents will apply to the payment of variable remuneration from 2020.

Preparation of the modifications to the rules took place in cooperation with an external consultant, the Gessel law firm, which supported the Bank in preparing the process aimed at granting to Risk Takers the Bank Millennium shares as part of the variable remuneration. The project was developed by representatives of the Human Resources, Legal and Compliance Departments and supervised directly by the Chairman of the Management Board.

By the decision of the Supervisory Board of November 29th, 2019, the Bank implemented modified rules under which 50% of the variable remuneration for Risk Takers will be paid in the Bank's own shares listed on the Warsaw Stock Exchange.

The Personnel Committee of the Supervisory Board supervised the annual verification process of the list of people identified as Risk Takers. In 2019, the verified list of people having a significant impact on the risk profile remained unchanged compared to 2018.

In 2019, supervision over the remuneration policy in the Bank Millennium Group was performed by the Personnel Committee of the Supervisory Board, composed of:

1. Andrzej Koźmiński – Chairman
2. Nuno Manuel da Silva Amado
3. Miguel de Campos Pereira de Bragança
4. Bogusław Kott

The Committee is responsible, inter alia, for determining assessment criteria and assessing the work of the Bank's Management Board Members, including their re-evaluation of work in order to decide on granting entitlement to the deferred part of bonuses from previous years. In addition, in accordance with the scope of its competences, the Personnel Committee of the Supervisory Board, among others: (i) verifies meeting the criteria and conditions justifying obtaining variable remuneration components of Management Board Members before paying all or part of this remuneration, (ii) gives opinions on the remuneration policy, including the amount and type of remuneration components , (iii) gives opinions on the amount of remuneration for persons holding key managerial positions in the Group related to risk management and compliance of the Bank's operations with internal law and regulations.

In 2019, three meetings of the Personnel Committee of the Supervisory Board were held (01/02/2019, 31/05/2019, 27/11/2019). The subject of the Committee's work was: (i) re-evaluation of the Members of the Bank's Management Board and establishing the rules for the payment of part of the retained bonus for 2015, 2016 and 2017 to Members of the Bank's Management Board who performed functions in those years, (ii) evaluation of the work results of individual Members of the Bank's Management Board in 2016-2018 and granting bonuses to individual Members of the Management Board for this period on the terms set out in the Employee Remuneration Policy in the Bank Millennium Group and the Rules for granting and paying out variable remuneration components to Members of the Management Board of Bank Millennium SA, (iii) consideration of information on decisions regarding bonuses for 2016-2018 for " Risk Takers ", who are not Members of the Bank's Management Board, (iv) analysis of the process of determining the amounts of payment of fixed and variable components of remuneration to persons holding managerial positions, in accordance with the remuneration policy and the rules for granting and payment of variable components of remuneration.

The Supervisory Board presented to the General Meeting (GSM) on March 25, 2019 a report on the assessment of the functioning of the remuneration policy in the Bank Millennium Group. The General Meeting of Shareholders recognized the policy pursued as supporting to the Bank's development and security.

The decision-making process in the former Eurobank:
At its meeting on March 13, 2019, the Supervisory Board of Euro Bank, after a positive recommendation of the Remuneration and Nomination Committee, adopted changes in the *Remuneration Policy regarding "identified employees"*. The changes were technical and updating. The adopted Annex 4 defined the key performance indicators (KPI) system for the Management Board, which was adapted to the specific situation of Euro Bank in 2019.

Information on the remuneration system, including the criteria used for performance measurement and risk adjustment, deferred payment policies and vesting criteria:

Pursuant to the remuneration policy, the individual remuneration of persons influencing the risk profile, including members of the Management Board, may not exceed the adopted reference level (currently 100%) in relation to the total annual base salary. In addition, the pool allocated to variable remuneration components of Bank Millennium Management Board Members may not exceed the share in the consolidated net profit of the Bank Millennium Group determined by the Supervisory Board (currently 2%). While maintaining these limitations, the bonus pool can be increased as indicators improve.

The remuneration of persons making decisions affecting the risk profile is shaped in particular in relation to:

- the scope of tasks carried out in a given organizational unit,
- the scope of responsibility for employees
- on the basis of analysis of payroll information presented in payroll surveys on the labor market at financial institutions.

Bonus pool and results
Variable remuneration components - the annual bonus pool for persons in managerial positions is granted after prior analysis of the Bank's situation in the field of:

- achieved business results: net profit, result on banking operations, cost to income ratio, ROE;
- liquidity: loans / deposits ratio, liquid assets value level;
- capital adequacy ratios in relation to the KNF reference level.

The Bank's results before granting the bonus pool for variable remuneration for persons in managerial positions are analysed in a three-year perspective.

The level of the bonus pool is correlated with the result on banking activities, net profit, cost / income ratio, ROE. Capital adequacy ratios in the period under assessment may not fall below levels accepted by the PFSA. Risk indicators relating to the Bank's liquidity in the period under assessment may not fall below levels accepted by the PFSA.

Payment deferral policy

Risk Takers - Members of the Management Board of Bank Millennium

Variable remuneration (annual bonus) paid for 2018 in 2019: The award and payment of 50% of the variable remuneration value took place after the end of the accounting period and after the publication of the financial results, and the payment of 50% of the variable remuneration is postponed for 3 years, payable in equal annual instalments. Members of the Management Board receive each part of the bonus awarded – those paid out in the year following the settlement period and the deferred ones - half in cash and half in financial instrument (phantom shares), the value of which relates to the value of Bank Millennium shares.

Other Risk Takers - Bank Millennium

The variable remuneration (annual bonus) paid for 2018 in 2019 was subject to the following rules: The bonus was paid in 50% in cash in the year following the given financial year. The remaining 50% was allocated in the financial instrument related to the value of Bank Millennium shares (phantom shares) - which after re-evaluation will be acquired in equal annual instalments during 3 years.

Other Risk Takers - former Eurobank

The variable remuneration (annual bonus) paid for 2018 in 2019 was subject to the following rules:

- 60% of the variable remuneration was not deferred (granted in advance).
- 40% of the variable remuneration was deferred and can be acquired proportionally over a period of 3 years, which includes three deferral periods (1-year deferral period - 14%, 2-year deferral period - 13% and 3-year deferral period - 13%).
- 50% of the non-deferred variable remuneration component consists of cash and 50% of financial instruments.
- 100% of the deferred variable remuneration component consists of financial instruments, which by resolution of the Supervisory Board was defined as Eurobank shares. After the merger with Bank Millennium, the shares of Eurobank granted under bonus programs were - by the decision of the Supervisory Board of Bank Millennium S.A. - converted into Bank Millennium own shares in accordance with the adopted conversion rate.

Eligibility criteria

The bonus, in the deferred part, is subject to re-assessment in subsequent years and may be reduced or retained on the basis of the decision of the Personnel Committee of the Supervisory Board depending on the financial situation of the Bank resulting from actions taken in the assessed period.

The condition of payment is the non-occurrence of the following events:

- significant correction of results in relation to the assessed period,
- low level of the Bank's results threatening the capital base,

- materialization of the risk of decisions taken in the period under assessment, which negatively affects the bank's risk profile.

Criteria for assessing results at the level of the Bank, organizational units and individual, which are the basis for determining and paying out individual variable remuneration

Members of the Bank's Management Board:

Decisions regarding the award of bonuses to Management Board members are made by the Personnel Committee of the Supervisory Board after analysing the results, taking into account the financial criteria:

- implementation of planned budgets and indicators set for the managed area of activity,
- comparison with competing banks of similar size,
- business market criteria established for a given period;

and non-financial criteria, in particular:

- overall quality of management in the area of responsibility,
- effective leadership and contribution to the Bank's development,
- management and supervision of entities in the area of responsibility.

Criteria for assessing results at the level of the Bank, organizational units and individual, which are the basis for determining and paying out individual variable remuneration

other Risk Takers

The Personnel Committee of the Management Board of Bank Millennium assesses work in a given settlement period based on quantitative criteria for a given area of responsibility (results of business operations of banking lines) and discretionary assessment of individual quality of work, with particular emphasis on the quality of decisions affecting the bank's risk profile in a minimum perspective of three years. Each person identified as taking risk was assigned an individual assessment criterion in the periodic assessment system related to his scope of responsibility regarding the impact on the risk profile of Bank Millennium Group.

Based on the overall evaluation of the results for the period under review, the value of the annual discretionary bonus is determined.

Directors of internal audit, compliance, legal , and risk management are remunerated in terms of variable remuneration for achieving the objectives arising from their functions, and their remuneration is not dependent on financial results executed in the areas controlled by them – both in the Bank and the relevant Subsidiaries.

Quantitative information on remuneration

Aggregated quantitative information concerning remuneration of persons in management positions in Bank Millennium Group. who have material impact on its risk profile, in the meaning of article 450 of CRR

Table 53. Aggregate quantitative information on remuneration per 2019, broken down by areas of the company's activity and by senior management and members of staff whose actions have a material impact on the risk profile of the institution (PLN thous.)

Business lines	Total remuneration		
	Management Board	Risk Takers (without Management Board Members)	Total
Retail Banking	0	4 367	4 367
Corporate Banking	0	5 982	5 982
Overall Bank Management	18 470	20 660	39 130
Total	**18 470**	**31 009**	**49 478**

Table 54. The amounts of remuneration for 2019 the financial year, split into fixed and variable remuneration. and the number of beneficiaries; the amounts and forms of variable remuneration, split into cash, shares, share-linked instruments and other types; the amounts of outstanding deferred remuneration, split into vested and unvested portions; broken down by Management Board Members, persons reporting directly to Management Board Members and other persons in management positions in Bank Millennium Group, whose actions have a material impact on the risk profile of the institution (PLN thous.)

	Management Board Members	Persons in management positions - reporting directly to Management Board Members (*)	Other persons in management positions
Number of persons	7	48	22
Fixed remuneration plus additional benefits	12 314	21 991	4 020
Variable remuneration (*)	6 156	4 456	542
Total cash	3 078	2 228	271
Cash paid	1 539	2 228	271
Cash deferred	1 539	0	0
Total financial instrument (*)	3 078	2 228	271
Vested financial instrument	0	0	0
Paid financial instrument	1 539	1 791	224
Deferred financial instrument	1 539	437	47

(*) Variable remuneration for members of the Bank's Management Board for 2019 was granted by the decision of the Personel Committee of the Bank's Subervisory Board on the 21 May, 2020.

Table 55. The amounts of outstanding deferred remuneration for the 2019 financial year, split into vested and unvested portions; broken down by Management Board Members, persons reporting directly to Management Board Members holding function in 2019 and other persons in management positions in Bank Millennium Group in 2019, whose actions have a material impact on the risk profile of the institution (PLN thous.)

	Management Board Members	Persons in management positions - reporting directly to Management Board Members	Other persons in management positions
Variable remuneration with deferred payment - part already awarded	0	0	0
Variable remuneration with deferred payment - part not yet awarded	3 078	1 791	224
Total deferred variable remuneration	3 078	1 791	224

Table 56. The amounts of deferred remuneration awarded during 2019 year, paid out and reduced through performance adjustments for persons in management positions (including former employees), broken down by Management Board Members, persons reporting directly to Management Board Members and other persons in management positions in Bank Millennium Group, whose actions have a material impact on the risk profile of the institution (PLN thous.)

	Management Board Members	Persons in management positions - reporting directly to Management Board Members	Other persons in management positions
Number of persons	*9*	*67*	*13*
Employed as of end of year	7	45	13
Former employees	2	22	0
Deferred remuneration paid out during the financial year, subject to adjustment for performance in previous financial years	4 044	5 793	186
Employed as of end of year	3 335	4 814	186
Former employees	709	979	0

(*) Deferred remuneration for 2015, 2016 and 2017 programmes

Table 57. New sign-on and severance payments made during the 2019 financial year, and the number of beneficiaries of such payments among persons in management positions, broken down by Management Board Members, persons reporting directly to Management Board Members and other persons in management positions in Bank Millennium Group, whose actions have a material impact on the risk profile of the institution (PLN thous.)

	Management Board Members	Persons in management positions - reporting directly to Management Board Members	Other persons in management positions
New sign-on and severance payments	0	25	25
Highest such payment	0	25	25
Number of persons receiving such payments	*0*	*1*	*1*

The number of individuals being remunerated EUR 1 million or more per financial year

1 person – remuneration in band 1-1,5 mln EUR.

Detail information concerning remuneration of Management Board Members are presented in the Management Board Report on Activity of Bank Millennium S.A. for 2019.

13. Statement of the Management Board

The Management Board of Bank Millennium SA hereby declares that:

- to the best of their knowledge, the information disclosed in accordance with section eight of the CRR was prepared in accordance with internal control processes;
- to the best of its knowledge, the adequacy of risk management arrangements in Bank Millennium SA, ensures that the risk management systems in place are adequate to the risk profile and strategy of the Bank and the Group
- approves this "Capital Adequacy, Risk, Remuneration Policy Report of Bank Millennium Capital Group as at 31 December 2019", which contains information about risk, discusses the general risk profile of the Bank and the Group associated with the business strategy and in which key indicators and figures were included, providing external stakeholders with a comprehensive view of risk management in the Bank Millennium SA Group, including the interaction between the Bank's risk profile and risk appetite, definedby the Management Board and approved by the Supervisory Board.

SIGNATURES

Date	Name and Surname	Position/Function	Signature
12.08.2020	Joao Bras Jorge	Chairman of the Management Board	....
12.08.2020	Fernando Bicho	Deputy Chairman of the Management Board	....
12.08.2020	Wojciech Haase	Member of the Management Board	....
12.08.2020	Andrzej Gliński	Member of the Management Board	....
12.08.2020	Wojciech Rybak	Member of the Management Board	....
12.08.2020	Antonio Pinto Junior	Member of the Management Board	....
12.08.2020	Jarosław Hermann	Member of the Management Board	....

Appendix 1 Own funds in accordance with the EU Commission Implementing Regulation No 1423/2013 of 20.12.2013

Laying down implementing technical standards with regard to disclosure of own funds requirementys for institutions, according to CRR

Main features of capital instruments

1	Issuer
2	Unique identifier (eg CUSIP. ISIN or Bloomberg identifier for private placement)
3	Governing law(s) of the instrument
Regulatory treatment	
4	Transitional CRR rules
5	Post-transitional CRR rules
6	Eligible at solo/(sub-)consolidated/ solo&(sub-)consolidated
7	Instrument type (types to be specified by each jurisdiction)
8	Amount recognised in regulatory capital (Currency in million. as of most recent reporting date)
9	Nominal amount of instrument
9a	Issue price
9b	Redemption price
10	Accounting classification
11	Original date of issuance
12	Perpetual or dated
13	Original maturity date
14	Issuer call subject to prior supervisory approval
15	Optional call date. contingent call dates and redemption amount
16	Subsequent call dates. if applicable
Coupons / dividends	
17	Fixed or floating dividend/coupon
18	Coupon rate and any related index
19	Existence of a dividend stopper
20a	Fully discretionary. partially discretionary or mandatory (in terms of timing)
20b	Fully discretionary. partially discretionary or mandatory (in terms of amount)
21	Existence of step up or other incentive to redeem
22	Noncumulative or cumulative
23	Convertible or non-convertible
24	If convertible. conversion trigger(s)
25	If convertible. fully or partially
26	If convertible. conversion rate
27	If convertible. mandatory or optional conversion
28	If convertible. specify instrument type convertible into
29	If convertible. specify issuer of instrument it converts into

30	Write-down features
31	If write-down. write-down trigger(s)
32	If write-down. full or partial
33	If write-down. permanent or temporary
34	If temporary write-down. description of write-up mechanism
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)
36	Non-compliant transitioned features
37	If yes. specify non-compliant features

	A	B1	B2	C	D1	D2	D3
1	Bank Millennium S.A.	Bank Millennium S.A.	Bank Millennium S.A.	Bank Millennium S.A.	Bank Millennium S.A.	Bank Millennium S.A.	Bank Millennium S.A.
2	N/A	N/A	N/A	PLBIG0000016	PLBIG0000016	PLBIG0000016	PLBIG0000016
3	Polish	Polish	Polish	Polish	Polish	Polish	Polish
4	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5	Common Tier I Capital	Common Tier I Capital	Common Tier I Capital	Common Tier I Capital	Common Tier I Capital	Common Tier I Capital	Common Tier I Capital
6	Stand-alone level/consolidated level	Stand-alone level/consolidated level	Stand-alone level/consolidated level	Stand-alone level/consolidated level	Stand-alone level/consolidated level	Stand-alone level/consolidated level	Stand-alone level/consolidated level
7	registered founder	registered ordinary	registered ordinary	bearer ordinary	bearer ordinary	bearer ordinary	bearer ordinary
8	427 400	600 000	600 000	18 772 600	6 800 008	10 445 464	4 006 000
9	1.00	1.00	1.00	1.00	1.00	1.00	1.00
9a	1.00	1.00	1.00	1.00	1.00	1.00	1.00
9b	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10	equity	equity	equity	equity	equity	equity	equity
11	30.06.1989	13.06.1990	13.12.1990	17.05.1991	31.12.1991	31.01.1992	10.03.1992
12	perpetual	perpetual	perpetual	perpetual	perpetual	perpetual	perpetual
13	N/A	N/A	N/A	N/A	N/A	N/A	N/A
14	N/A	N/A	N/A	N/A	N/A	N/A	N/A
15	N/A	N/A	N/A	N/A	N/A	N/A	N/A
16	N/A	N/A	N/A	N/A	N/A	N/A	N/A
17	Floating rate	Floating rate	Floating rate	Floating rate	Floating rate	Floating rate	Floating rate
18	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	Yes	Yes	Yes	Yes	Yes	Yes	Yes
20a	fully discretionary	fully discretionary	fully discretionary	fully discretionary	fully discretionary	fully discretionary	fully discretionary
20b	fully discretionary	fully discretionary	fully discretionary	fully discretionary	fully discretionary	fully discretionary	fully discretionary
21	N/A	N/A	N/A	N/A	N/A	N/A	N/A
22	N/A	N/A	N/A	N/A	N/A	N/A	N/A

23	N/A	N/A	N/A	N/A	N/A	N/A	N/A
24	N/A	N/A	N/A	N/A	N/A	N/A	N/A
25	N/A	N/A	N/A	N/A	N/A	N/A	N/A
26	N/A	N/A	N/A	N/A	N/A	N/A	N/A
27	N/A	N/A	N/A	N/A	N/A	N/A	N/A
28	N/A	N/A	N/A	N/A	N/A	N/A	N/A
29	N/A	N/A	N/A	N/A	N/A	N/A	N/A
30	N/A	N/A	N/A	N/A	N/A	N/A	N/A
31	GSM. statutory approach	GSM. statutory approach	GSM. statutory approach	GSM. statutory approach	GSM. statutory approach	GSM. statutory approach	GSM. statutory approach
32	full or partial	full or partial	full or partial	full or partial	full or partial	full or partial	full or partial
33	N/A	N/A	N/A	N/A	N/A	N/A	N/A
34	GSM's resolution	GSM's resolution	GSM's resolution	GSM's resolution	GSM's resolution	GSM's resolution	GSM's resolution
35	N/A	N/A	N/A	N/A	N/A	N/A	N/A
36	N/A	N/A	N/A	N/A	N/A	N/A	N/A
37	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Transitional Own Funds (PLN thousand)

	(A) AMOUNT AT DISCLOSURE DATE	(B) REGULATION (EU) NO 575/2013 ARTICLE REFERENCE	(C) AMOUNTS SUBJECT TO PRE-REGULATION (EU) NO 575/2013 TREATMENT OR PRESCRIBED RESIDUAL AMOUNT OF REGULATION (EU) NO 575/2013
Common Equity Tier 1 capital: instruments and reserves			
Capital instruments and the related share premium accounts	2 360 619	26 (1). 27. 28. 29. EBA list 26 (3)	0
Retained earnings	6 054 795	26 (1) (c)	0
Accumulated other comprehensive income (and other reserves. to include unrealised gains and losses under the applicable accounting standards)	70 093	26 (1)	0
Funds for general banking risk	228 902	26 (1) (f)	0
Independently reviewed interim profits net of any foreseeable charge or dividend	0	26 (2)	0
Common Equity Tier 1 (CET1) capital before regulatory adjustments	**8 714 409**		0

Common Equity Tier 1 (CET1) capital: regulatory adjustments			
Additional value adjustments (negative amount)	-25 334	34. 105	0
Intangible assets (net of related tax liability) (negative amount)	-342 652	36 (1) (b). 37. 472 (4)	0
Fair value reserves related to gains or losses on cash flow hedges	23 397	33 (a)	0
Negative amounts resulting from the calculation of expected loss amounts	-351 983	36 (1) (d). 40. 159. 472 (6)	0
Transitional adjustments due to MSSF 9	120 704	473a	0
Regulatory adjustments relating to unrealised gains and losses pursuant to Articles 467 and 468	-		0
Of which: …filter for unrealised loss 1	-	467	0
Of which: …filter for unrealised loss 2	-	467	0
Of which: …filter for unrealised gain 1	-	468	0
Of which: …filter for unrealised gain 2	-	468	0
Total regulatory adjustments to Common equity Tier 1 (CET1)	-575 869		0
Common Equity Tier 1 (CET1) capital	**8 138 540**		0
Additional Tier 1 (AT1) capital: instruments			
Additional Tier 1 (AT1) capital before regulatory adjustments	-		0
Additional Tier 1 (AT1) capital: regulatory adjustments			
Additional Tier 1 (AT1) capital	-		0
Tier 1 capital (T1 = CET1 + AT1)	8 138 540		0
Tier 2 (T2) capital: instruments and provisions			
Capital instruments and subordinated debt qualified as Tier II capital	1 530 000	63	
Tier 2 (T2) capital before regulatory adjustments	1 530 000		0
Tier 2 (T2) capital: regulatory adjustments			
Total regulatory adjustments to Tier 2 (T2) capital	0		0
Tier 2 (T2) capital	1 530 000		0
Total capital (TC = T1 + T2)	9 668 540		0
Risk weighted assets in respect of amounts subject to pre-CRR treatment and transitional treatments subject to phase out as prescribed in Regulation (EU) No 575/2013(i.e. CRR residual amounts)	-		0
Of which: …items not deducted from CET1 (Regulation (EU) No 575/2013residual amounts) (items to be detailed line by line. e.g. Deferred tax assets that rely on future profitability net of related tax liablity. indirect holdings of own CET1. etc)	-	472. 472 (5). 472 (8) (b). 472 (10) (b). 472 (11) (b)	0
Of which: …items not deducted from AT1 items (Regulation (EU) No 575/2013residual amounts) (items to be detailed line by line. e.g. Reciprocal cross holdings in T2 instruments. direct holdings of non-significant investments in the capital of other financial sector entities. etc)	-	475. 475 (2) (b). 475 (2) (c). 475 (4) (b)	0

Items not deducted from T2 items (Regulation (EU) No 575/2013residual amounts) (items to be detailed line by line. e.g. Indirect holdings of own t2 instruments. indirect holdings of non significant investments in the capital of other financial sector entities. indirect holdings of significant investments in the capital of other financial sector entities etc)	-	477. 477 (2) (b). 477 (2) (c). 477 (4) (b)	0
Total risk weighted assets	48 124 585		0
Capital ratios and buffers			0
Common Equity Tier 1 (as a percentage of risk exposure amount)	16,91%	92 (2) (a). 465	0
Tier 1 (as a percentage of risk exposure amount)	16,91%	92 (2) (b). 465	0
Total capital (as a percentage of risk exposure amount)	20,09%	92 (2) (c)	0
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 the systemically important institution buffer (G-SII or O-SII buffer). expressed as a percentage of risk exposure amount)	10,00%	CRD 128. 129. 130	0
of which: capital conservation buffer requirement	2,50%		0
of which: countercyclical buffer requirement	0,00%		0
of which: systemic risk buffer requirement	3,00%		0
of which: Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer	0,00%	CRD 131	0
Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)	16,91%	CRD 128	0

Description of key components of own funds

Details of items from Table no 7 (in PLN thous.)

1.1.1.1.1	**Paid-for capital instruments**	**1 213 117**

This item is equal to the company's share capital. which comprises the following components (nominal value of one share = PLN 1):

Series / issue	Share type	Privilege type	Number of shares	Series / issue value	Payment of capital	Registration date	Right to dividend
A	registered founding	x2 voting rights	106 850	106 850	cash	30.06.1989	30.06.1989
B1	registered ordinary		150 000	150 000	cash	13.06.1990	01.01.1990
B2	registered ordinary		150 000	150 000	cash	13.12.1990	01.01.1990
C	bearer ordinary		4 693 150	4 693 150	cash	17.05.1991	01.01.1991
D1	bearer ordinary		1 700 002	1 700 002	cash	31.12.1991	01.01.1992
D2	bearer ordinary		2 611 366	2 611 366	cash	31.01.1992	01.01.1992
D3	bearer ordinary		1 001 500	1 001 500	cash	10.03.1992	01.01.1992
E	bearer ordinary		6 000 000	6 000 000	cash	28.05.1993	01.01.1992
F	bearer ordinary		9 372 721	9 372 721	cash	10.12.1993	01.01.1993
G	bearer ordinary		8 000 000	8 000 000	cash	30.05.1994	01.10.1993
H	bearer ordinary		7 082 129	7 082 129	cash	24.10.1994	01.10.1994
Increase of nominal share value from PLN 1 to 4				122 603 154	Reserve capital	24.11.1994	
1:4 share split			122 603 154			05.12.1994	

I	bearer ordinary	65 000 000	65 000 000	cash	12.08.1997	01.10.1996
J	bearer ordinary	196 120 000	196 120 000	Capitals of Bank Gdański S.A.	12.09.1997	01.10.1996
K	bearer ordinary	424 590 872	424 590 872	cash	31.12.2001	01.01.2001
L	bearer ordinary	363 935 033	363 935 033	cash	26.02.2010	01.01.2009
Total number of shares		1 213 116 777				
Total stock capital			1 213 116 777			

1.1.1.1.3	**Agio**	**1 147 502**
Agio is the capital from sale of shares above their nominal value. It is created with the issue premium generated from an issue of shares less direct related costs incurred.		
1.1.1.2.2.1	**Profit or loss attributable to owners of the parent entity**	**633 856**
This item is equal to 2019 consolidated net result.		
1.1.1.2.2.2	**(-) Part of unrecognized profit from the current period or unrecognized annual profit**	**-300 233**
Net result, which may be included into own funds for prudential standards		
1.1.1.3	**Accumulated other total income**	**70 093**
This item comprises revaluation capital, which arose in result of recognition of: * Effect of measurement (at fair value) of financial assets available for sale in the net amount i.e. after deduction of deferred tax. These amounts are removed from revaluation capital is done when all or part of the valuated assets are taken out of the books or when impairment is recognised (the valuation effect is then taken to the P&L Account). Amount of PLN 96 169 thous. * Effect of measurement (at fair value) of derivative instruments hedging cash flows in the net amount i.e. after deduction of deferred tax. Revaluation capital carries part of profit or loss involved with the instrument hedging cash flows, which constitutes an effective hedge, while the ineffective part of profit or loss involved with this hedging instrument is carried in P&L. Amount of PLN (-) 22 397 thous. * Actuarial profit / (loss) in the net amount i.e. after deferred tax. Revaluation capital carries profit or loss resulting from discounting of future liabilities arisen on account of a provision created for retirement severance pay. These values are not eligible for moving to P&L. The amount is PLN (–) 2 679 thous.		
1.1.1.4	**Reserve capital**	**5 721 172**
This capital arose in result of annual resolutions of the Shareholders' Meeting on distribution of profit. These resolutions decided to retain part of profit generated in the Bank and in Companies of the Group. According to the Articles of Association the GSM decides about use of additional reserve capital and it may be used in particular to cover any future losses or for payment of dividend.		
1.1.1.5	**General banking risk fund**	**228 902**
The General Banking Risk Fund in the Bank was created with profit after tax in keeping with provisions of Banking Law of 29 August 1997 as amended.		
1.1.1.9.2	**Provision for instruments hedging cash flows**	**23 397**
This amount with a negative mark is a component of item 1.1.1.3 and in accordance with article 33 of Regulation No. 575/2013 the Bank does not include it in own funds.		
1.1.1.9.5	**Value adjustments coming from requirements on prudent valuation**	**-25 334**
That adjustment concerns: * debt securities (valued at fair value through profit and loss): PLN (-) 874 thous. * debt securities (valued at fair value through other comprehensive income): PLN (-) 21 827 thous. * shares (valued at fair value): PLN (-) 199 thous. * balance sheet value of derivatives (trading portfolio): PLN (-) 465 thous. * balance sheet value of derivatives (hedging): PLN (-) 471 thous.		

* loans (valued at fair value): : PLN (-) 1 498 thous.

1.1.1.10.1	(-) Goodwill included in the valuation of material investments	**-162 757**
The ammount comes from the purchase and connection with Eurobank		
1.1.1.11.1	**(-) Gross amount of other intangible assets**	**-179 895**
This amount comprises mainly the value of software purchased by the Bank and companies of the Group.		
1.1.1.13	**(-) Shortage of credit risk corrections in view of expected losses according to IRB approach**	**-351 983**
Deductions under art. 36 CRR concern portfolios of retail residential real estate (RRE) mortgages and renewable retail exposures (QRRE). with respect to which the Group has permission to apply the IRB approach. The method of carrying the amounts of expected losses is consistent with CRR art. 128 and 159.		
1.1.1.26	**Other interim corrections in Tier I**	**120 704**
These corrections comprise following amounts: * Transitional adjustments due to MSSF 9 (473a): PLN 118 592 thous.		
1.2.1.1	**Paid-for equity instruments and subordinated loans**	**1 530 000**
The Bank (and Group) includes in supplementary funds the liabilities from issue of securities with maturities on 7 December, 2027 and 30 January, 2029. The nominal amount of the liability is PLN 700 000 000 and PLN 830 000 000.		
1.2.10	**Other interim corrections in Tier II**	**0**

Appendix 2 IFRS 9-FL Comparison of institutions' own funds and capital and leverage ratios with and without the application of transitional arrangements for IFRS 9 or analogous ECLs (in PLN thous. and in %)

	31.12.2019	30.09.2019	30.06.2019	31.03.2019
Available capital (amounts)				
1. Common Equity Tier 1 (CET1) capital	8 138 540	8 248 802	7 940 527	8 128 867
2.Common Equity Tier 1 (CET1) capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	8 017 832	8 115 368	7 813 469	8 021 207
3. Tier 1 capital	8 138 540	8 248 802	7 940 527	8 128 867
4. Tier 1 capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	8 017 832	8 115 368	7 813 469	8 021 207
5. Total capital	9 668 540	9 778 802	9 470 527	9 658 867
6. Total capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	9 547 832	9 645 368	9 343 469	9 551 207
Risk-weighted assets (amounts)				
7. Total risk-weighted assets	48 124 585	48 316 713	47 048 060	37 735 239
8. Total risk-weighted assets as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	48 011 238	48 191 727	46 932 161	37 669 839
Capital ratios				
9. Common Equity Tier 1 (as percentage of risk exposure amount)	16,91%	17,07%	16,88%	21,54%
10. Common Equity Tier 1 (as percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	16,70%	16,84%	16,65%	21,29%
11. Tier 1 (as percentage of risk exposure amount)	16,91%	17,07%	16,88%	21,54%
12. Tier 1 (as percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	16,70%	16,84%	16,65%	21,29%
13. Total capital (as percentage of risk exposure amount)	20,09%	20,24%	20,13%	25,60%
14. Total capital (as percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	19,89%	20,01%	19,91%	25,36%
Leverage ratio				
15. Leverage ratio total exposure measure	100 317 830	99 770 600	95 484 076	84 478 842
16. Leverage ratio	8,11%	8,27%	8,31%	9,62%
17. Leverage ratio as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	8,00%	8,14%	8,18%	9,48%

Disclosures index

The below table presents the disclosure index with references to chapters in the Disclosures or another documents of the Group, wherein information defined in Part Eight of CRR are presented. The table presents the references to the tables and templates set in the another European regulations on disclosures:

- EBA/GL/2016/11 - Guidelines on disclosure requirements under Part Eight of Regulation (EU) No 575/2013
- RTS/2017/2295 – Commission delegated regulation (EU) 2017/2295 supplementing CRR with regard to regulatory technical standards for disclosure of encumbered and unencumbered assets
- EBA/GL/2018/01 – EBA guidelines on uniform disclosures under Article 473a of CRR as regards the transitional period for mitigating the impact of the introduction of IFRS 9 on own funds
- EBA/GL/2017/01 – EBA guidelines on LCR disclosure to complement the disclosure of liquidity risk management under Article 435 of CRR
- EBA/GL/2018/10 – EBA Guidelines on disclosure of non-performing and forborne exposures
- ITS/1423/2013 – Commission implementing regulation (EU) No 1423/2013 laying down implementing technical standards with regards to disclosure of own funds requirements for institutions according to CRR
- ITS/2016/200 – Commission implementing regulation (EU) laying down implementing technical standards with regards to disclosure of the leveraga ratio for institutions, according to CRR
- EBA/GL/2015/22 – EBA guidelines on sound remuneration policies under Articles 74(3) and 75(2) of Directive 2013/36/Eu and disclosures under Article 450 of CRR

Disclosures index

ARTICLE CRR (Part 8) / Table in regulations	CRR text / Title of the table in regulations	Point in the Report / other document
435.1.a	1. Institutions shall disclose their risk management objectives and policies for each separate category of risk. including the risks referred to under this Title. These disclosures shall include: (a) the strategies and processes to manage those risks;	3,6,7,8,9 9 Yearly Report VIII Man.Board Report
435.1.b	(b) the structure and organisation of the relevant risk management function including information on its authority and statute. or other appropriate arrangements;	3 9 Yearly report VIII Man.Board Report

435.1.c	(c) the scope and nature of risk reporting and measurement systems;	3 9 Yearly report VIII Man.Board Report
435.1.d	(d) the policies for hedging and mitigating risk. and the strategies and processes for monitoring the continuing effectiveness of hedges and mitigants;	11.4 9 Yearly report VIII Man.Board Report
435.1.e	(e) a declaration approved by the management body on the adequacy of risk management arrangements of the institution providing assurance that the risk management systems put in place are adequate with regard to the institution's profile and strategy;	13
435.1.f	435.1.f (f) a concise risk statement approved by the management body succinctly describing the institution's overall risk profile associated with the business strategy. This statement shall include key ratios and figures providing external stakeholders with a comprehensive view of the institution's management of risk. including how the risk profile of the institution interacts with the risk tolerance set by the management body.	3 9 Yearly report VIII Man.Board Report
435.2.a	2. Institutions shall disclose the following information. including regular. at least annual updates. regarding governance arrangements: (a) the number of directorships held by members of the management body;	3
435.2.b	(b) the recruitment policy for the selection of members of the management body and their actual knowledge. skills and expertise;	12 IX Man.Board Report III Non-financial Report
435.2.c	(c) the policy on diversity with regard to selection of members of the management body. its objectives and any relevant targets set out in that policy. and the extent to which these objectives and targets have been achieved	12 IX Man.Board Report III Non-financial Report
435.2.d	(d) whether or not the institution has set up a separate risk committee and the number of times the risk committee has met;	3
435.2.e	(e) the description of the information flow on risk to the management body.	3
436.a-b	Institutions shall disclose the following information regarding the scope of application of the requirements of this Regulation in accordance with Directive 2013/36/EU: (a) the name of the institution to which the requirements of this Regulation apply; (b) an outline of the differences in the basis of consolidation for accounting and prudential purposes. with a brief description of the entities therein. explaining whether they are: (i) fully consolidated; (ii) proportionally consolidated; (iii) deducted from own funds; (iv) neither consolidated nor deducted;	4
436.c	(c) any current or foreseen material practical or legal impediment to the prompt transfer of own funds or repayment of liabilities among the parent undertaking and its subsidiaries;	4

436.d	(d) the aggregate amount by which the actual own funds are less than required in all subsidiaries not included in the consolidation, and the name or names of such subsidiaries;	4
436.e	(e) if applicable, the circumstance of making use of the provisions laid down in Articles 7 and 9.	4
437.1.a	1. Institutions shall disclose the following information regarding their own funds: (a) a full reconciliation of Common Equity Tier 1 items. Additional Tier 1 items. Tier 2 items and filters and deductions applied pursuant to Articles 32 to 35. 36. 56. 66 and 79 to own funds of the institution and the balance sheet in the audited financial statements of the institution;	4
437.1.b	(b) a description of the main features of the Common Equity Tier 1 and Additional Tier 1 instruments and Tier 2 instruments issued by the institution;	4 Appnedix 1
437.1.c	(c) the full terms and conditions of all Common Equity Tier 1. Additional Tier 1 and Tier 2 instruments;	4 Appendix 1
437.1.d	(d) separate disclosure of the nature and amounts of the following: (i) each prudential filter applied pursuant to Articles 32 to 35; (ii) each deduction made pursuant to Articles 36. 56 and 66; (iii) items not deducted in accordance with Articles 47. 48. 56. 66 and 79;	4 Appendix 1
437.1.e	(e) a description of all restrictions applied to the calculation of own funds in accordance with this Regulation and the instruments. prudential filters and deductions to which those restrictions apply;	4
437.1.f	(f) where institutions disclose capital ratios calculated using elements of own funds determined on a basis other than that laid down in this Regulation. a comprehensive explanation of the basis on which those capital ratios are calculated.	Not applicable
438.a	Institutions shall disclose the following information regarding the compliance by the institution with the requirements laid down in Article 92 of this Regulation and in Article 73 of Directive 2013/36/EU: (a) a summary of the institution's approach to assessing the adequacy of its internal capital to support current and future activities;	5.2 9 Yearly report VIII Man. Board Report
438.b	(b) upon demand from the relevant competent authority. the result of the institution's internal capital adequacy assessment process including the composition of the additional own funds requirements based on the supervisory review process as referred to in point (a) of Article 104(1) of Directive 2013/36/EU;	2
438.c	(c) for institutions calculating the risk-weighted exposure amounts in accordance with Chapter 2 of Part Three. Title II. 8 % of the risk-weighted exposure amounts for each of the exposure classes specified in Article 112;	5.1

438.d	(d) for institutions calculating risk-weighted exposure amounts in accordance with Chapter 3 of Part Three. Title II. 8 % of the risk-weighted exposure amounts for each of the exposure classes specified in Article 147. For the retail exposure class. this requirement applies to each of the categories of exposures to which the different correlations in Article 154(1) to (4) correspond. For the equity exposure class. this requirement applies to: (i) each of the approaches provided in Article 155; (ii) exchange traded exposures. private equity exposures in sufficiently diversified portfolios. and other exposures; (iii) exposures subject to supervisory transition regarding own funds requirements; (iv) exposures subject to grandfathering provisions regarding own funds requirements;	5.1
438.e	(e) own funds requirements calculated in accordance with points (b) and (c) of Article 92(3);	5.1
438.f	(f) own funds requirements calculated in accordance with Part Three. Title III. Chapters 2. 3 and 4 and disclosed separately.	5.1
439.a	Institutions shall disclose the following information regarding the institution's exposure to counterparty credit risk as referred to in Part Three. Title II. Chapter 6: (a) a discussion of the methodology used to assign internal capital and credit limits for counterparty credit exposures;	6.2
439.b	(b) a discussion of policies for securing collateral and establishing credit reserves;	6.2
439.c	(c) a discussion of policies with respect to wrong-way risk exposures;	6.2
439.d	(d) a discussion of the impact of the amount of collateral the institution would have to provide given a downgrade in its credit rating;	6.2
439.e	(e) gross positive fair value of contracts. netting benefits. netted current credit exposure. collateral held and net derivatives credit exposure. Net derivatives credit exposure is the credit exposure on derivatives transactions after considering both the benefits from legally enforceable netting agreements and collateral arrangements;	6.2 3,8 Yearly Report Note 18e, 23 Yearly Report
439.f	(f) measures for exposure value under the methods set out in Part Three. Title II. Chapter 6. Sections 3 to 6 whichever method is applicable;	6.2
439.g	(g) the notional value of credit derivative hedges. and the distribution of current credit exposure by types of credit exposure;	6.2
439.h	(h) the notional amounts of credit derivative transactions. segregated between use for the institution's own credit portfolio. as well as in its intermediation activities. including the distribution of the credit derivatives products used. broken down further by protection bought and sold within each product group;	6.2
439.i	(i) the estimate of α if the institution has received the permission of the competent authorities to estimate α.	6.2
440.1.a	An institution shall disclose the following information in relation to its compliance with the requirement for a countercyclical capital buffer referred to in Title VII. Chapter 4 of Directive 2013/36/EU: a) the geographical distribution of its credit exposures relevant for	2

	the calculation of its countercyclical capital buffer	
440.1.b	b) the amount of its institution specific countercyclical capital buffer	2
441	1. Institutions identified as G-SIIs in accordance with Article 131 of Directive 2013/36/EU shall disclose. on an annual basis. the values of the indicators used for determining the score of the institutions in accordance with the identification methodology referred to in that Article.	Not applicable
442.a	Institutions shall disclose the following information regarding the institution's exposure to credit risk and dilution risk: (a) the definitions for accounting purposes of 'past due' and 'impaired';	6.3 8,9 Yearly Report
442.b	(b) a description of the approaches and methods adopted for determining specific and general credit risk adjustments;	6.3 7,8 Yearly Report
442.c	(c) the total amount of exposures after accounting offsets and without taking into account the effects of credit risk mitigation. and the average amount of the exposures over the period broken down by different types of exposure classes;	6
442.d	(d) the geographic distribution of the exposures. broken down in significant areas by material exposure classes. and further detailed if appropriate;	6
442.e	(e) the distribution of the exposures by industry or counterparty type. broken down by exposure classes. including specifying exposure to SMEs. and further detailed if appropriate;	6
442.f	(f) the residual maturity breakdown of all the exposures. broken down by exposure classes. and further detailed if appropriate;	6 Yearly Report Note 21i
442.g	(g) by significant industry or counterparty type. the amount of: (i) impaired exposures and past due exposures. provided separately; (ii) specific and general credit risk adjustments; (iii) charges for specific and general credit risk adjustments during the reporting period;	6.3 VIII.3 Man. Board Report
442.h	(h) the amount of the impaired exposures and past due exposures. provided separately. broken down by significant geographical areas including. if practical. the amounts of specific and general credit risk adjustments related to each geographical area;	6.3
442.i	(i) the reconciliation of changes in the specific and general credit risk adjustments for impaired exposures. shown separately. The information shall comprise: (i) a description of the type of specific and general credit risk adjustments; (ii) the opening balances; (iii) the amounts taken against the credit risk adjustments during the reporting period; (iv) the amounts set aside or reversed for estimated probable losses on exposures during the reporting period. any other adjustments including those determined by exchange rate differences. business combinations. acquisitions and disposals of subsidiaries. and transfers between credit risk adjustments; (v) the closing balances.	6.3
443	Unencumbered assets	6.5

444.a	For institutions calculating the risk-weighted exposure amounts in accordance with Part Three, Title II, Chapter 2, the following information shall be disclosed for each of the exposure classes specified in Article 112: (a) the names of the nominated ECAIs and ECAs and the reasons for any changes;	6.4
444.b	(b) the exposure classes for which each ECAI or ECA is used;	6.4
444.c	(c) a description of the process used to transfer the issuer and issue credit assessments onto items not included in the trading book;	6.4
444.d	(d) the association of the external rating of each nominated ECAI or ECA with the credit quality steps prescribed in Part Three, Title I, Chapter 2, taking into account that this information needs not be disclosed if the institution complies with the standard association published by EBA;	6.4
444.e	(e) the exposure values and the exposure values after credit risk mitigation associated with each credit quality step prescribed in Part Three. Title II. Chapter 2 as well as those deducted from own funds.	6.4
445	Exposure to market risk	8 9.4 Yearly Report
446	Operational risk	9
447.a	Institutions shall disclose the following information regarding the exposures in equities not included in the trading book: (a) the differentiation between exposures based on their objectives. including for capital gains relationship and strategic reasons. and an overview of the accounting techniques and valuation methodologies used. including key assumptions and practices affecting valuation and any significant changes in these practices;	8
447.b	(b) the balance sheet value. the fair value and. for those exchange-traded. a comparison to the market price where it is materially different from the fair value;	8
447.c	(c) the types. nature and amounts of exchange-traded exposures. private equity exposures in sufficiently diversified portfolios. and other exposures;	8
447.d	(d) the cumulative realised gains or losses arising from sales and liquidations in the period; and	8
447.e	(e) the total unrealised gains or losses. the total latent revaluation gains or losses. and any of these amounts included in the original or additional own funds.	8
448.a	Institutions shall disclose the following information on their exposure to interest rate risk on positions not included in the trading book: (a) the nature of the interest rate risk and the key assumptions (including assumptions regarding loan prepayments and behaviour of non-maturity deposits). and frequency of measurement of the interest rate risk;	8 9.4 Yearly Report
448.b	(b) the variation in earnings. economic value or other relevant measure used by the management for upward and downward rate shocks according to management's method for measuring the interest rate risk. broken down by currency.	8 9.4 Yearly Report

449	Exposure to securitisation positions	6.1
450.a	1. Institutions shall disclose at least the following information. regarding the remuneration policy and practices of the institution for those categories of staff whose professional activities have a material impact on its risk profile: (a) information concerning the decision-making process used for determining the remuneration policy. as well as the number of meetings held by the main body overseeing remuneration during the financial year. including. if applicable. information about the composition and the mandate of a remuneration committee. the external consultant whose services have been used for the determination of the remuneration policy and the role of the relevant stakeholders;	12 VIII.3 Man. Board Report III.2.2 Non-financial Report
450.b	b) information on link between pay and performance;	12
450.c	(c) the most important design characteristics of the remuneration system. including information on the criteria used for performance measurement and risk adjustment. deferral policy and vesting criteria;	12
450.d	(d) the ratios between fixed and variable remuneration set in accordance with Article 94(1)(g) of Directive 2013/36/EU;	12
450.e	(e) information on the performance criteria on which the entitlement to shares. options or variable components of remuneration is based	12
450.f	(f) the main parameters and rationale for any variable component scheme and any other non-cash benefits;	12
450.g	(g) aggregate quantitative information on remuneration. broken down by business area;	12
450.h	(h) aggregate quantitative information on remuneration. broken down by senior management and members of staff whose actions have a material impact on the risk profile of the institution. indicating the following: (i) the amounts of remuneration for the financial year. split into fixed and variable remuneration. and the number of beneficiaries; (ii) the amounts and forms of variable remuneration. split into cash. shares. share-linked instruments and other types; (iii) the amounts of outstanding deferred remuneration. split into vested and unvested portions; (iv) the amounts of deferred remuneration awarded during the financial year. paid out and reduced through performance adjustments; (v) new sign-on and severance payments made during the financial year. and the number of beneficiaries of such payments; (vi) the amounts of severance payments awarded during the financial year. number of beneficiaries and highest such award to a single person;	12
450.i	(i) the number of individuals being remunerated EUR 1 million or more per financial year. for remuneration between EUR 1 million and EUR 5 million broken down into pay bands of EUR 500 000 and for remuneration of EUR 5 million and above broken down into pay bands of EUR 1 million;	12

451.a	1. Institutions shall disclose the following information regarding their leverage ratio calculated in accordance with Article 429 and their management of the risk of excessive leverage: (a) the leverage ratio and how the institution applies Article 499(2) and (3);	10
451.b	(b) a breakdown of the total exposure measure as well as a reconciliation of the total exposure measure with the relevant information disclosed in published financial statements;	10
451.c	(c) where applicable. the amount of derecognised fiduciary items in accordance with Article 429(11);	10
451.d	(d) a description of the processes used to manage the risk of excessive leverage;	10
451.e	(e) a description of the factors that had an impact on the leverage ratio during the period to which the disclosed leverage ratio refers.	10
452.a	under the IRB Approach shall disclose the following information: (a) the competent authority's permission of the approach or approved transition;	11.1
452.b	(b) an explanation and review of:	
452.b	(i) the structure of internal rating systems and relation between internal and external ratings	11.2
452.b	(ii) the use of internal estimates other than for calculating risk-weighted exposure amounts in accordance with Part Three. Title II. Chapter 3;	11.3
452.b	(iii) the process for managing and recognising credit risk mitigation;	11.4
452.b	(iv) (iv) the control mechanisms for rating systems including a description of independence. accountability. and rating systems review;	11.5
452.c	a description of the internal ratings process. provided separately for the following exposure classes:	11.2
452.c	(i) central governments and central banks;	11.2
452.c	(ii) institutions;	11.2
452.c	(iii) corporate. including SMEs. specialised lending and purchased corporate receivables;	11.2
452.c	(iv) retail, for each of the categories of exposures to which the different correlations in Article 154(1) to (4) correspond;	11.2
452.c	(v) equities;	11.2
452.d	(d) the exposure values for each of the exposure classes specified in Article 147. Exposures to central governments and central banks. institutions and corporates where institutions use own estimates of LGDs or conversion factors for the calculation of risk-weighted exposure amounts shall be disclosed separately from exposures for which the institutions do not use such estimates;	11.2
452.e	(e) for each of the exposure classes central governments and central banks. institutions. corporate and equity. and across a sufficient number of obligor grades (including default) to allow for a meaningful differentiation of credit risk. institutions shall disclose:	11.2

452.e	(i) the total exposures. including for the exposure classes central governments and central banks. institutions and corporate. the sum of outstanding loans and exposure values for undrawn commitments; and for equities the outstanding amount;	11.2
452.e	(ii) the exposure-weighted average risk weight;	11.2
452.e	(iii) for the institutions using own estimates of conversion factors for the calculation of risk-weighted exposure amounts. the amount of undrawn commitments and exposure-weighted average exposure values for each exposure class;	11.2
452.f	(f) For the retail exposure class and for each of the categories set out in point (c)(iv). either the disclosures outlined in point (e) (if applicable. on a pooled basis). or an analysis of exposures (outstanding loans and exposure values for undrawn commitments) against a sufficient number of EL grades to allow for a meaningful differentiation of credit risk (if applicable. on a pooled basis);	11.2
452.g	(g) the actual specific credit risk adjustments in the preceding period for each exposure class (for retail. for each of the categories as set out in point (c)(iv)) and how they differ from past experience;	11.2
452.h	(h) a description of the factors that impacted on the loss experience in the preceding period (for example. has the institution experienced higher than average default rates. or higher than average LGDs and conversion factors);	11.2
452.i	(i) the institution's estimates against actual outcomes over a longer period. At a minimum. this shall include information on estimates of losses against actual losses in each exposure class (for retail. for each of the categories as set out in point (c)(iv) over a period sufficient to allow for a meaningful assessment of the performance of the internal rating processes for each exposure class (for retail for each of the categories as set out in point (c)(iv). Where appropriate. the institutions shall further decompose this to provide analysis of PD and. for the institutions using own estimates of LGDs and/or conversion factors. LGD and conversion factor outcomes against estimates provided in the quantitative risk assessment disclosures set out in this Article;	11.2
452.j	(j) for all exposure classes specified in Article 147 and for each category of exposure to which the different correlations in Article 154 (1) to (4) correspond: (i) for the institutions using own LGD estimates for the calculation of risk-weighted exposure amounts. the exposure-weighted average LGD and PD in percentage for each relevant geographical location of credit exposures; (ii) for the institutions that do not use own LGD estimates. the exposure-weighted average PD in percentage for each relevant geographical location of credit exposures.	Not applicable
453.a	The institutions applying credit risk mitigation techniques shall disclose the following information: (a) the policies and processes for. and an indication of the extent to which the entity makes use of. on- and off- balance sheet netting;	11.4
453.b	(b) the policies and processes for collateral valuation and management;	11.4
453.c	(c) a description of the main types of collateral taken by the	11.4

	institution;	
453.d	(d) the main types of guarantor and credit derivative counterparty and their creditworthiness;	11.4
453.e	(e) information about market or credit risk concentrations within the credit mitigation taken;	11.4
453.f	(f) for institutions calculating risk-weighted exposure amounts under the Standardised Approach or the IRB Approach. but not providing own estimates of LGDs or conversion factors in respect of the exposure class. separately for each exposure class. the total exposure value (after. where applicable. on- or off-balance sheet netting) that is covered — after the application of volatility adjustments — by eligible financial collateral. and other eligible collateral;	11.4 6.1
453.g	(g) for institutions calculating risk-weighted exposure amounts under the Standardised Approach or the IRB Approach. separately for each exposure class. the total exposure (after. where applicable. on- or off-balance sheet netting) that is covered by guarantees or credit derivatives. For the equity exposure class. this requirement applies to each of the approaches provided in Article 155.	11.2 11.4 6.1
454	Use of the Advanced Measurement Approaches to operational risk	Not applicable
455	Use of Internal Market Risk Models	Not applicable
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