

**2018**

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**Disclosures  
on Capital Adequacy of  
mBank Hipoteczny S.A.  
as at 31 December 2018**

Warsaw, 26 March 2019  
(update: 27 August 2019)

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## **1. Introduction**

Capital adequacy is defined as an extent to which risks taken by Bank (measured through capital requirement) can be absorbed by risk coverage capital (measured by own funds) at given significance level (a risk appetite) and at given time horizon. The Bank plans and monitors capital adequacy at two levels:

1. Regulatory requirement (Pillar I) where regulatory capital requirement is compared with regulatory own funds (regulatory capital),
2. Internal models (Pillar II) where internal capital calculated using internal methods is compared with available financial resources specified by Bank.

„Information Policy of mBank Hipoteczny S.A.” defines scope and principles of publishing information on capital adequacy specified in Regulation (EU) No. 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No. 648/2012, with further amendments as well as Commission Implementing and Delegated Regulations (EU) (hereinafter referred to as CRR). The information policy introduced by a resolution of the Bank’s Management Board and approved by the Supervisory Board, is published on the website of Bank [www.mhipoteczny.pl](http://www.mhipoteczny.pl).

Disclosures are published on the website of mBank Hipoteczny S.A. (hereinafter referred to as Bank) at the time of the Bank’s financial statements publication.

The published information is verified by an auditor, then the information is approved by the Management Board of the Bank.

Information presented are based on standalone data for Bank (the Bank has no subsidiaries) according to the requirements of the CRR Regulation are contained in the presented document.

If not stated specifically further in the report, all the amounts are presented in PLN thousand.

## 2. The scope of prudential consolidation

The Bank does not own any subsidiary, therefore, the following data are standalone data of the Bank. The Bank is a part of mBank Group.

## 3. Reconciliation of Common Equity Tier 1 capital item in relation to own funds of the institution and balance sheet in the audited financial statement

Reconciliation of equities included in the financial statement of the Bank for 2018 prepared in accordance with International Financial Reporting Standards to positions included in the own funds of the Bank as at 31 December 2018 is presented below.

Reconciliation	Financial Statement for the year 2018	Items not included in own funds and regulatory adjustments	Own funds in part regarding Common Equity Tier 1 capital
Equity	31.12.2018	31.12.2018	31.12.2018
<b>Share capital:</b>	<b>734 719</b>	-	<b>734 719</b>
Registered share capital	321 000	-	321 000
Share premium	413 719	-	413 719
<b>Retained earnings:</b>	<b>359 119</b>	<b>(24 615)</b>	<b>334 504</b>
Other supplementary capital	273 082	-	273 082
General banking risk reserve	44 800	-	44 800
Profit for the current year	41 237	(24 615)	16 622
<b>Other components of equity</b>	<b>5 481</b>	-	<b>5 481</b>
Valuation of available for sale financial assets	5 477	-	5 477
Actuarial gains and losses relating to post-employment benefits	4	-	4
<b>Regulatory adjustments</b>	-	<b>(141 310)</b>	<b>(141 310)</b>
Intangible assets	-	(39 719)	(39 719)
IRB shortfall of credit risk adjustments to expected losses	-	(81 585)	(81 585)
Net impairment losses on loans and advances	-	(5 284)	(5 284)
Additional Value Adjustments	-	(1 351)	(1 351)
Impact of IFRS 9	-	(13 371)	(13 371)

## 4. Capital adequacy

The guiding principle of managing of capital in the Bank is maintaining of the capital on the level ensuring stable development of the Bank and covering of both minimum capital requirement and remaining risk categories recognised by the Bank as significant. Capital management is based on principles specified in the Banking Law and good practices.

The main aim of capital management is to ensure that capital resources to the Bank that will be sufficient to cover risk exposures, and in particular ensuring of implementation of required capitalisation within the limits of risk appetite.

The Bank manages the capital for risk covering using system of limits and early warning indicators, basing the core of the concept on principles formulated within consolidated supervision in the Capital Group, supporting implementation of strategic capital objectives. The Bank acts within Principles of capital management and planning policy which aim is to ensure effective use of available capital.

Effective use of capital is an integral part of the capital management policy oriented at reaching an optimal rate of return on capital and as a result forming a stable fundament of reinforcement of the capital basis in future periods. It allows to maintain the ratio of Common Equity Tier 1 capital (calculated as the quotient of Common Equity Tier 1 capital and total amount of risk exposure) as well as the total capital ratio (calculated as the quotient of own funds and the total amount of risk exposure) at least at the level required by supervising institution.

Strategic capital objectives of the Bank are oriented towards maintaining of both total capital ratio and Common Equity Tier 1 capital ratio on the level appropriately higher than level required by the supervising institution. It allows to maintain safe business development meeting the supervisory requirements in the long perspective.

## **5. Own funds**

Own funds include Common Equity Tier 1 capital, Additional Tier 1 capital and Tier 2 capital. As at 31 December 2018, the Bank does not identify Additional Tier 1 capital. Detailed information on particular elements of the Bank's own funds as at 31 December 2017 are presented in point 5.1. Point 5.2 presents the structure of own funds of the Bank as at 31 December 2018.

### **5.1. Main information**

#### **COMMON EQUITY TIER 1 CAPITAL**

##### Capital instruments and the related share premium accounts

As at 31 December 2018, the item Capital instruments and the related share premium accounts includes share capital and supplementary capital from the sales of shares above nominal value reduced by the Bank's costs of issuing. In case of issues that took place after 28 July 2013, in accordance with the Banking Law Act and CRR Regulation, the Bank obtained approval of the of the Polish Financial Supervisory Authority (PFSA) to classify them to Common Equity Tier 1 capital.

<b>Capital instruments and the related share premium accounts</b>	<b>31.12.2018</b>
Registered share capital	321 000
Supplementary capital from the sales of shares above nominal value	413 719
<b>Total</b>	<b>734 719</b>

Detailed information concerning share and supplementary capital are presented in Notes 35 and 36 of the financial statement of mBank Hipoteczny S.A. for 2018.

##### Accumulated other comprehensive income

The item Accumulated other comprehensive income presents unrealised gains and losses that constitute the Bank's other components of equity as at 31 December 2018 in the amount of PLN 5 481 thousand. The structure of accumulated other comprehensive income of the Bank as at 31 December 2018 is described below.

<b>Accumulated other comprehensive income</b>	<b>31.12.2018</b>
<b>Instruments available for sale</b>	<b>5 477</b>
- unrealized gains and losses on debt instruments	6 762
- deferred tax	(1 285)
<b>Actuarial gains and losses on fringe benefits after employment period</b>	<b>4</b>
- actuarial gains	5
- deferred tax	(1)
<b>Total accumulated other comprehensive income</b>	<b>5 481</b>

##### Other reserve capitals

Other reserve capitals constitute the other supplementary capital made of profit deductions and is intended for purposes specified in the articles of association or other provisions of law. As at 31 December 2018 other reserve capitals amounted to PLN 273 082 thousand.

#### Fund for general banking risk

The Bank allocates part of the net profit to the fund for general banking risk to cover unexpected risks and future losses. The fund for general banking risk is subject to distribution only with the consent of shareholders expressed during general meeting. As at 31 December 2018, the fund for general banking risk amounted to PLN 44 800 thousand.

#### Independently reviewed interim profits

In the calculation of Common Equity Tier 1 capital as at 31 December 2018 a verified net profit of mBank Hipoteczny S.A. for the first half of 2018 was included. Net profit achieved by mBank Hipoteczny S.A. in the first half of 2018 amounted to PLN 16 622 thousand. In accordance with the decision dated 27th August 2018, the Bank obtained PFSA approval for classification of net profit for the first half of 2018 to Common Equity Tier 1 capital in the amount of PLN 16 622 thousand.

### **REGULATORY ADJUSTMENTS/DEDUCTIONS FROM THE COMMON EQUITY TIER 1 CAPITAL**

#### Intangible assets

In accordance with Art. 37 of the CRR Regulation, intangible assets are included in the account of Common Equity Tier 1 capital after reduction by the amount of associated deferred tax liabilities. In the calculation of Common Equity Tier 1 capital as at 31 December 2018 the amount of PLN 39 719 thousand on account of tangible assets was included.

#### Negative amounts resulting from the calculation of expected loss amounts

The Bank, which constitutes an institution that calculates risk-weighted exposure amounts using IRB method, is obliged to include negative amounts resulting from the calculation of expected loss amounts in the calculation of own funds. According to Article 36 (1d) of the CRR Regulation, the negative amounts resulting from the calculation specified in Articles 158 and 159 of the CRR Regulation were included in Common Equity Tier 1 capital as at 31 December 2018 in the amount of PLN 81 585 thousand.

#### Net impairment losses

In the item of net impairment losses as at 31 December 2018, the value of net impairment losses due to the loss of value of loans and advances in the period from 1 July 2018 to 31 December 2018 was presented, recognised in the profit and loss account in the amount of PLN 5 284 thousand. Used approach is consistent with provisions of the Commission Delegated Regulation (EU) No. 183/2014 dated 20 December 2013 that supplements the CRR Regulation in relation to technical regulatory standards regarding determination of the manner of calculation of adjustments resulting from specific and general credit risk.

#### Additional value adjustments

In accordance with Article 34 of the CRR Regulation, additional value adjustments have been calculated to all assets measured at fair value in accordance with the requirements of Article 105 of the CRR Regulation and included in Common Equity Tier 1 capital of mBank Hipoteczny S.A. as at 31 December 2018 in the amount of PLN 1 351 thousand.

### **ADDITIONAL TIER 1 CAPITAL**

As at 31 December 2018, instruments that could be treated as Additional Tier 1 capital are not identified in the Bank.

## **TIER 2 CAPITAL**

### Capital instruments and subordinated loans

In accordance with the decision dated 7 January 2016, mBank Hipoteczny S.A. obtained approval of the PFSA to classify funds in the amount of PLN 100 000 thousand to supplementary funds in accordance with terms and conditions of the subordinated loan agreement concluded on 12 November 2015 between mBank Hipoteczny S.A. and mBank S.A. with a repayment date on 15 December 2025. As at 31 December 2017, the full amount of loan, that is PLN 100 000 thousand, was classified to Tier 2 capital.

In accordance with the decision dated 27 August 2018, mBank Hipoteczny S.A. obtained approval of the PFSA to classify funds in the amount of PLN 100 000 thousand to supplementary funds in accordance with terms and conditions of the subordinated loan agreement concluded on 12 June 2018 between mBank Hipoteczny S.A. and mBank S.A. with a repayment date on 15 December 2028. As at 31 December 2018, the full amount of loan, that is PLN 100 000 thousand, was classified to Tier 2 capital.

In accordance with the provisions of Commission Implementing Regulation (EU) No. 1423/2013 dated 20 December 2013, establishing technical implementing standards in the scope of requirements regarding disclosure of information on own funds of institutions in accordance with the CRR Regulation (hereinafter referred to as Regulation No. 1423/2013), the description of main characteristics of capital instruments included in own funds of the Bank as at 31 December 2017 is presented on the next page in the table prepared on the basis of a template that constitute appendix II to the Regulation No. 1423/2013.

## **TOTAL CAPITAL**

The total capital item includes the amount of own funds of the Bank as at 31 December 2018 that constitutes the sum of Common Equity Tier 1 capital and Tier 2 capital. Own funds of the Bank as at 31 December 2018 amounted to PLN 1 133 394 thousand.

**mBank Hipoteczny S.A.**  
**Disclosure on Capital Adequacy of mBank Hipoteczny S.A.**  
**as of 31 December 2018**

**Capital instruments' main features**

			Series A	Series B	Series C	Series D	Series E	Series F	Series G	Series H
1	Issuer	mBank Hipoteczny S.A.	mBank Hipoteczny S.A.	mBank Hipoteczny S.A.	mBank Hipoteczny S.A.	mBank Hipoteczny S.A.	mBank Hipoteczny S.A.	mBank Hipoteczny S.A.	mBank Hipoteczny S.A.	mBank Hipoteczny S.A.
2	Unique identifier (eg. CUSIP or Bloomberg identifier for private placement)	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
3	Governing law(s) of the instrument	Polish	Polish	Polish	Polish	Polish	Polish	Polish	Polish	Polish
	<i>Regulatory treatment</i>									
4	Transitional CRR rules	Tier 2 Capital	Tier 2 Capital	Tier 1 Capital	Tier 1 Capital	Tier 1 Capital	Tier 1 Capital	Tier 1 Capital	Tier 1 Capital	Tier 1 Capital
5	Post-transitional CRR rules	Tier 2 Capital	Tier 2 Capital	Tier 1 Capital	Tier 1 Capital	Tier 1 Capital	Tier 1 Capital	Tier 1 Capital	Tier 1 Capital	Tier 1 Capital
6	Eligible at solo/(sub-)consolidated / solo & (sub-)consolidated(sub-)	Solo	Solo	Solo	Solo	Solo	Solo	Solo	Solo	Solo
7	Instrument type (types to be specified by each jurisdiction)	Subordinated loan – Polish Banking Law Act Art. 127.1	Subordinated loan – Polish Banking Law Act Art. 127.1	Ordinary share, Art. 28 CRR	Ordinary share, Art. 28 CRR	Ordinary share, Art. 28 CRR	Ordinary share, Art. 28 CRR	Ordinary share, Art. 28 CRR	Ordinary share, Art. 28 CRR	Ordinary share, Art. 28 CRR
8	Amount recognised in regulatory capital (currency in million, as of most recent reporting date)	PLN 100	PLN 100	PLN 50	PLN 85	PLN 40	PLN 100	PLN 100	PLN 140	PLN 120
9	Nominal amount of instrument	Issue currency: PLN 100M; In reporting currency: PLN 100M	Issue currency: PLN 100M; In reporting currency: PLN 100M	PLN 50M	PLN 85M	PLN 40M	PLN 100M	PLN 10M	PLN 14M	PLN 12M
9a	Issue price	100.00%	100.00%	PLN 100	PLN 100	PLN 100	PLN 100	PLN 1 000	PLN 1 000	PLN 1 000
9b	Redemption price	100.00%	100.00%	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
10	Accounting classification	Liability – amortised cost	Liability – amortised cost	Share capital	Share capital	Share capital	Share capital	Share capital	Share capital	Share capital
11	Original date of issue	16-10-2012	2018-07-16	18-03-1999	15-03-2000	20-01-2006	23-11-2012	13-11-2014	24-07-2015	02-06-2016
12	Perpetual or dated	Dated	Dated	Perpetual	Perpetual	Perpetual	Perpetual	Perpetual	Perpetual	Perpetual
13	Original maturity date	19-12-2022	2028-12-15	No term	No term	No term	No term	No term	No term	No term
14	Issuer call subject to prior supervisory approval	Yes	Yes	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
15	Optional call date, contingent call dates and redemption amount	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
16	Subsequent call dates, if applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
	<i>Coupons / dividends</i>									
17	Fixed or floating dividend/coupon	Floating coupon	Floating coupon	Floating dividend	Floating dividend	Floating dividend	Floating dividend	Floating dividend	Floating dividend	Floating dividend
18	Coupon rate and any related index	PLN WIBOR 3M+3.5%	PLN WIBOR 3M+3.0%	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
19	Existence of a dividend stopper	Not applicable	Not applicable	No	No	No	No	No	No	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory	Mandatory	Partly discretionary	Partly discretionary	Partly discretionary	Partly discretionary	Partly discretionary	Partly discretionary	Partly discretionary
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory	Mandatory	Fully discretionary	Fully discretionary	Fully discretionary	Fully discretionary	Fully discretionary	Fully discretionary	Fully discretionary
21	Existence of the option of increasing interest or other incentives to redeem	No	No	No	No	No	No	No	No	No
22	Noncumulative or cumulative	Noncumulative	Noncumulative	Noncumulative	Noncumulative	Noncumulative	Noncumulative	Noncumulative	Noncumulative	Noncumulative
23	Convertible or non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible
24	If convertible or non-convertible, conversion trigger(s)	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
25	If convertible, fully or partially	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
26	If convertible, conversion rate	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
27	If convertible, mandatory or optional conversion	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
28	If convertible, specify instrument type convertible into	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
29	If convertible, specify issuer of instrument it converts info	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
30	Write-down features	Not applicable	Not applicable	No	No	No	No	No	No	No
31	If write-down, write-down trigger(s)	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
32	If write-down, full or partial	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
33	If write-down, permanent or temporary	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
34	If write-down, description of write-up mechanism	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	The lowest priority of satisfaction and will rank only to the extent permitted by applicable laws relating to creditors' right	The lowest priority of satisfaction and will rank only to the extent permitted by applicable laws relating to creditors' right	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
36	Non-compliant transitional features	No	No	No	No	No	No	No	No	No
37	If yes, specify non-compliant features	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable



## 5.2. Own funds structure

In accordance with provisions of the Regulation No. 1423/2013, the structure of own funds based on a template that constitute appendix VI to the Regulation No. 1423/2013 is presented below. Taking into account the clarity and the value in use of the document for its recipients, in the table below the scope of disclosures is limited to non-zero items.

<b>Common Equity Tier 1 capital: instruments and reserves</b>		<b>Amount at disclosure date (as at 31.12.2018)</b>
1	Capital instruments and the related share premium accounts	734 719
3	Accumulated other comprehensive income (and other reserves, to include unrealised gains and losses under the applicable accounting standards)	5 481
	Other reserve capital	273 082
3a	Funds for general banking risk	44 800
5a	Independently reviewed interim profits net of any foreseeable charge or dividend	16 622
6	<b>Common Equity Tier 1 (CET1) capital before regulatory adjustments</b>	<b>1 074 704</b>
<b>Common Equity Tier 1 capital: regulatory adjustments</b>		
7	Additional Value Adjustmens	(20 006)
8	Intangible assets (net of related deferred tax liability)	(39 719)
12	Negative amounts resulting from the calculation of expected loss amounts	(81 585)
28	<b>Total regulatory adjustments to Common Equity Tier 1 capital (CET1)</b>	<b>(141 310)</b>
29	<b>Common Equity Tier 1 (CET1) capital</b>	<b>933 394</b>
44	<b>Additional Tier 1 (AT1) capital</b>	-
45	<b>Common Equity Tier 1 capital (Tier 1 capital = Common Equity Tier 1 capital + Additional Tier 1 capital)</b>	<b>933 394</b>
<b>Tier 2 (T2) capital: instruments and provisions</b>		
46	Capital instruments and the related share premium accounts	200 000
51	<b>Tier 2 (T2) capital before regulatory adjustments</b>	<b>200 000</b>
58	<b>Tier 2 (T2) capital</b>	<b>200 000</b>
59	<b>Total capital (TC= T1+T2)</b>	<b>1 133 394</b>
60	<b>Total risk weighted assets</b>	<b>6 975 276</b>
<b>Capital ratios and buffers</b>		
61	<b>Common Equity Tier 1 (as a percentage of risk exposure amount)</b>	<b>13.38%</b>
62	<b>Tier 1 (as a percentage of risk exposure amount)</b>	<b>13.38%</b>
63	<b>Total capital (as a percentage of risk exposure amount)</b>	<b>16.25%</b>
64	<b>Institution specific buffer requirement (CET1 requirement in accordance with article 92 (1) (a) of the CRR Regulation 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)</b>	<b>4.88%</b>
65	of which: capital conservation buffer requirement	1.88%
66	of which: countercyclical buffer requirement	0.00%
67	of which: systemic risk buffer requirement	3.00%
68	<b>Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)</b>	<b>7.38%</b>

## **6. Capital requirements**

### **6.1. Internal capital adequacy assessment – description of the approach**

mBank Hipoteczny S.A. obtained consent issued by Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) on 14 August 2012 in cooperation with the PFSA (PFSA letter dated 27 August 2012) to apply internal rating methods in terms of assignment of exposures due to specialist lending to risk category (IRB slotting approach method) to calculate capital requirement due to credit risk. On the basis of consent issued on 2 April 2014 by BaFin in cooperation with the PFSA (PFSA letter dated 10 April 2014), the Bank extended applied IRB approach with further rating models.

By the letter dated 12 December 2013, the Bank informed PFSA on the extension of the plan of gradual implementation of internal rating method in mBank Hipoteczny S.A. with the class of retail exposures secured on housing real estates.

There are ongoing works at the Bank – initiated with the submission of the Prevalidation Application in H2 2016 – focusing on obtaining the consent of the supervision authority to acquire via the A-IRB method the retail portfolio obtained within the scope of cooperation with mBank S.A., based on the adaptation of the models applied in mBank S.A. In Q4 2017, the Bank obtained an official position from the Polish (PFSA) and the European (ECB) supervision authority, which is the result of the observations from the inspection carried out in Q4 2016, as well as of the answers of the Bank to the initial evaluation results, addressed at the beginning of 2017 by the PFSA.

A material part of recommendations identified during the inspection was addressed by the Bank, *inter alia*, by the adaptation of the LGD model, while the mBank Group intends to satisfy all requirements of the supervision authorities in 2019, which will result in filing the final Application for using statistical methods for calculating capital requirements for credit risk for the retail portfolio obtained within the framework of the cooperation with mBank S.A. In June 2018, a project team was appointed for the purposes of filing the final Application. At present, supervisory authorities (PFSA, ECB) are approving changes to the model.

In the calculation of total capital ratio of the Bank as at 31 December 2018, the total capital requirement was designated taking into account the capital requirement due to credit risk with application of the IRB method in accordance with provisions of the CRR Regulation and also own funds were designated with an application of deduction resulting from the IRB approach and were at the level higher than 80% of comparative total capital requirement (so called regulatory floor), in accordance with provisions of the CRR Regulation.

### **6.2. Results of the internal capital adequacy assessment**

The key element of the risk management process in the Bank is the mechanism that assumes maintaining of own funds on the level that provides the ability to absorb unexpected losses due to any types of risks resulting from the business activity conducted by the Bank. This aim is implemented in the scope of ICAAP (Internal Capital Adequacy Assessment Process) which through mechanisms of estimation of adequacy of internal capital reinforces associations between risk profile (level), risk management mechanism and owned capital.

Through the implementation of the ICAAP, the Bank performs current and future assessment of capital adequacy in the context of necessity to maintain it, even in very difficult economic conditions and ensures that an institution owns adequate internal capital in relation to the risk profile. The process is subject to regular reviews implemented by the Management Board of the Bank and is supervised by the Supervisory Board.

Internal capital is value estimated by the Bank that is necessary to cover all significant types of risks identified in the operations in the scope of risk inventory process - it constitutes the sum of economic capital used to cover types of risks included in the process of calculation of economic capital and the capital used for covering of remaining types of risks (including hard to quantify risks).

Economic capital is determined using appropriate quantitative methods allowing for reflection of the degree of risk in an adequate manner. Currently total economic capital covers the following elements:

- economic capital to cover credit risk,
- economic capital to cover market risk,
- economic capital to cover operational risk,
- economic capital to cover business risk.

Capital for covering remaining types of risks (including hard to quantify risks) is estimated in accordance with the rules defined in the ICAAP.

The risk management system is associated with capital and process management at its planning. Risk appetite is defined as acceptable level of risk specified in terms of value and expressed using internal capital, which is defined by the Risk Management Strategy of the Bank.

### **6.3. Additional information about using the internal ratings-based approach**

#### **6.3.1 Clarification and review of controls on rating systems (including a description of the degree of their independence and scopes of responsibilities) and a review of the rating systems**

As regards the portfolios subject to the IRB approach, the rating models used in specialised lending within the commercial portfolio are subject to monitoring which is performed at least once a year by the model Owners who are independent of the model Users. The monitoring comprises analyses carried out at the individual case level, as well as portfolio analyses. More frequent verification of a rating system by the model Owners is dependent on the occurrence of factors (internal and/or external) which may contribute significantly to a change in the value of a model's component parameters. The effectiveness of a rating system's elements is also tested on a current basis by the model Owners in the case of default loans.

The rating models for the commercial portfolio are also subject to annual validation performed by a Validation Unit which is independent of the units responsible for building, rebuilding and using the rating models at the Bank. The validation of the rating system for specialised lending is qualitative and quantitative in nature. The scope of qualitative validation covers, among other things, evaluating the rules for constructing a model, testing the theoretical correctness and the correctness of implementation of the rating models, and analysing the quality of the data used for building the model. In quantitative validation, the main object of evaluation is the functioning of a model in terms of the discriminant power of the model, as well as the stability of the model.

The rating system for specialised lending is also subject to the annual reviews of the Bank's rating systems. As part of the review, the Internal Audit Department evaluates corporate governance, the principles of segmentation and the correctness of determination of capital requirements, stress tests used in assessing capital adequacy, the integrity of the process of assigning ratings, credit risk mitigation methods, and the data quality management process.

#### **6.3.2 Description of factors which affected the losses incurred in the previous period**

Taking into account portfolios subject to the IRB approach – commercial portfolio, specialised lending using supervisory categories – the Bank calculates impairment losses based on an individual analysis (stage 3) and portfolio analysis (stages 1 and 2). The Bank does not use PD and LGD parameters within the meaning of own estimation of parameters based on the internal rating model to measure impairment for this portfolio. The Bank measures impairment for credit exposures in accordance with International Financial Reporting Standard 9.

The amount of losses incurred in 2018 was higher than the amount of losses incurred in 2017. The key factor that resulted in the increase was a need to create a write-down for identified defaults, no need to create additional write-downs for new defaults and improvement of factors having an impact on LGD estimation in the portfolio analysis – improvement of the ratio reflecting the exposure value to the collateral value.

#### **6.4. Supervisory requirements for capital ratios**

The Bank maintains capital ratios above minimal levels that result from provisions of the CRR Regulation, as well as above levels that were expected from the Bank in 2018 by the banking supervision (total capital ratio – 13.875%, Tier 1 capital ratio – 10.875%, common equity Tier 1 capital ratio – 9.375%).

Strategic capital objectives of the Bank are oriented towards maintaining of both total capital ratio and Common Equity Tier 1 capital ratio on the level appropriately higher than level required by the supervising institution. It allows to maintain safe business development meeting the supervisory requirements in the long perspective.

Capital ratios are calculated on the basis of the total amount of risk exposure, corresponding to the sum of risk exposure amounts for particular types of risks, calculated in accordance with provisions of the CRR Regulation.

#### **6.5. Quantitative data regarding capital adequacy**

The total amount of risk exposure of the Bank as at 31 December 2018 consists of:

- risk-weighted exposure amount for credit risk, counterparty credit risk, calculated using the IRB slotting approach and a standardised approach for exposures permanently excluded from the IRB approach as well as exposures subject to temporary exclusion,
- operational risk exposure amount, calculated using basic indicator approach.

There is no trading portfolio in the Bank, therefore, the Bank does not calculate risk-weighted exposure amounts in relation to other types of risks.

		RWAs		Minimum capital requirements	
		31.12.2018		31.12.2018	
1	Credit risk (excluding CCR)	6 711 121		536 890	
2	Of which the standardised approach	2 579 423		206 354	
3	Of which the foundation IRB (FIRB) approach	4 131 698		330 536	
6	CCR	12 030		962	
7	Of which mark to market	12 030		962	
23	Operational risk	252 125		20 180	
24	Of which basic indicator approach	252 125		20 180	
<b>29</b>	<b>Total</b>	<b>6 975 276</b>		<b>558 032</b>	

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The table below presents credit exposures for which the requirement was calculated using the IRB slotting approach broken down into supervisory categories of risk as at 31 December 2018.

Specialised lending							
Regulatory categories	Remaining maturity	On- balance-sheet amount	Off-Balance-sheet amount	Risk weight	Exposure amount	RWAs	Expected losses
Category 1	Less than 2.5 years	-	-	50%	-	-	-
	Equal to or more than 2.5 years	5 931	-	70%	5 932	4 153	23
Category 2	Less than 2.5 years	106 076	140 088	70%	106 212	74 348	425
	Equal to or more than 2.5 years	4 204 152	1 339 303	90%	4 213 835	3 792 452	33 711
Category 3	Less than 2.5 years	2 525	-	115%	2 538	2 919	71
	Equal to or more than 2.5 years	142 990	-	115%	145 503	167 327	4 074
Category 4	Less than 2.5 years	-	-	250%	-	-	-
	Equal to or more than 2.5 years	17 299	-	250%	17 308	43 271	1 385
Category 5	Less than 2.5 years	95 125	-	-	131 659	-	65 829
	Equal to or more than 2.5 years	153 592	-	-	252 660	-	126 330
<b>Total</b>	<b>Less than 2.5 years</b>	<b>203 726</b>	<b>140 088</b>		<b>240 409</b>	<b>77 267</b>	<b>66 325</b>
	<b>Equal to or more than 2.5 years</b>	<b>4 523 964</b>	<b>1 339 303</b>		<b>4 635 238</b>	<b>4 007 203</b>	<b>165 523</b>

*Standardised approach – Credit risk exposure and CRM effects*

Exposure classes	a)		b)		c)		d)		e)		f)	
	Exposures before CCF and CRM				Exposures post CCF and CRM				RWAs and RWA density			
	On-balance-sheet amount	Off-balance-sheet amount	On-balance-sheet amount	Off-balance-sheet amount	On-balance-sheet amount	Off-balance-sheet amount	RWAs	RWA density	RWAs	RWA density	RWAs	RWA density
1 Central governments or central banks	1 085 686	-	-	-	1 085 686	-	-	-	-	-	-	0%
2 Regional government or local authorities	57 003	-	-	-	180 329	-	-	-	36 066	-	-	20%
3 Public sector entities	53 436	-	-	-	-	-	-	-	-	-	-	0%
6 Institutions	130 335	-	-	-	130 335	-	-	-	28 002	-	-	21%
7 Corporates	69 891	-	-	-	-	-	-	-	-	-	-	0%
8 Retail	778 394	13 698	-	-	778 394	6 849	-	-	588 950	-	-	75%
9 Secured by mortgages on immovable property	5 408 015	10 464	-	-	5 408 015	5 225	-	-	1 923 574	-	-	36%
10 Exposures in default	13 465	563	-	-	13 465	281	-	-	14 854	-	-	108%
15 Equity	8	-	-	-	8	-	-	-	8	-	-	100%
<b>17 Total</b>	<b>7 596 233</b>	<b>24 725</b>	<b>7 596 232</b>	<b>12 355</b>	<b>2 591 454</b>	<b>34%</b>						

*Exposures under the standardised approach by asset class and risk weight*

Exposure classes	Risk weight							Total	Of which unrated
	0%	20%	35%	50%	75%	100%	150%		
Central governments or central banks	1 085 686	-	-	-	-	-	-	1 085 686	1 085 686
Regional government or local authorities	-	180 329	-	-	-	-	-	180 329	180 329
Institutions	74 331	-	-	56 004	-	-	-	130 335	-
Retail	-	-	-	-	785 211	-	32	785 242	785 242
Secured by mortgages on immovable property	-	-	5 379 431	-	-	19 881	13 928	5 413 239	5 413 239
Exposures in default	-	-	-	-	-	11 530	2 216	13 746	13 746
Equity	-	-	-	-	-	8	-	8	8
<b>Total</b>	<b>1 160 017</b>	<b>180 329</b>	<b>5 379 430</b>	<b>56 004</b>	<b>785 211</b>	<b>31 419</b>	<b>16 175</b>	<b>7 608 585</b>	<b>7 478 250</b>

## 7. Capital buffers

On the basis of the Act on macroprudential supervision over the financial system and crisis management in the financial system as well as the relevant amendment to the Banking Act, starting from January 2016 mBank Hipoteczny S.A. has been obliged to maintain specific capital buffers:

- Conservation buffer ratio of 1.875%;
- Countercyclical buffer ratio specific to institutions, which currently amounts to 0%.
- Systemic risk buffer ratio of 3%

The foreign credit exposures in mBank Hipoteczny S.A. represent less than 2% of the total risk-weighted exposures, therefore, in the table on the geographical distribution of the relevant credit exposures for the purpose of calculating a countercyclical buffer the entire portfolio was allocated to Poland. In the table,

the exposures from the following countries were allocated to the location of the institution: Germany, Austria, Belgium, and Switzerland, which represent a total of 0.005% of the total value of the Bank's original exposures. Germany, Austria, the United States, Belgium, and Switzerland,

*The geographical distribution of the relevant credit exposures for the purpose of calculating a countercyclical buffer as at 31 December 2018*

	Country	General credit exposures		Own funds requirements		Own funds requirement weights	Countercyclical capital buffer rate
		Exposure value for SA	Exposure value IRB	Of which: General credit exposures	Total		
		010	020	070	100		
010	Poland	6 212 236	4 875 647	202 190 811	202 190 811	100	-

*The amount of the countercyclical buffer specific to institutions as at 31 December 2018*

Amount of institution-specific countercyclical capital buffer		
010	Total risk exposure amount	6 975 276
020	Institution specific countercyclical buffer rate	-
030	Institution specific countercyclical buffer requirement	-

## 8. Leverage ratio

The regulatory leverage ratio as at 31 December 2018 was calculated on the basis of the provisions of Commission Delegated Regulation (EU) 2015/62 of 10 October 2014 amending Regulation (EU) No 575/2013 of the European Parliament and of the Council with regard to the leverage ratio (hereinafter: "Regulation 2015/62").

The leverage ratio is calculated as a measure of Tier 1 capital divided by the total exposure measure and is expressed as a percentage. The total exposure measure is the sum of the exposure values specified in accordance with Regulation 2015/62 in respect of all assets and off-balance sheet items not deducted when determining the measure of Tier 1 capital.

The Tier 1 capital for the leverage ratio was calculated in accordance with Regulation 575/2013, using the national options defined in Article 171a of the Banking Act.

The table below presents information regarding the leverage ratio as at 31 December 2018 and the division of the total exposure measure which makes up the leverage ratio in accordance with Commission Implementing Regulation 2016/200 (EU) of 15 February 2016 laying down implementing technical standards with regard to the disclosure of the leverage ratio for institutions, according to Regulation (EU) No 575/2013 of the European Parliament and of the Council (hereinafter: "Regulation 2016/200").

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<b>On-balance sheet exposures (excluding derivatives and SFTs)</b>		
1	On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral)	12 351 587
2	(Asset amounts deducted in determining Tier 1 capital)	(127 939)
3	<b>Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets)</b>	<b>12 223 648</b>
<b>Derivative exposures</b>		
4	Replacement cost associated with all derivatives transactions (ie net of eligible cash variation margin)	59 521
5	Add-on amounts for PFE associated with all derivatives transactions (mark-to-market method)	35 342
7	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	(54 902)
11	<b>Total derivatives exposures</b>	<b>39 961</b>
<b>Other off-balance sheet exposures</b>		
17	Off-balance sheet exposures at gross notional amount	1 506 428
18	(Adjustments for conversion to credit equivalent amounts)	(1 345 900)
19	<b>Other off-balance sheet exposures</b>	<b>160 528</b>
<b>Exempted exposures in accordance with Article 429(7) and (14) of Regulation (EU) No 575/2013 (on and off balance sheet)</b>		
EU-19a	<b>(Intragroup exposures (solo basis) exempted in accordance with Article 429(7) of Regulation (EU) No 575/2013 (on and off balance sheet)</b>	<b>(74 331)</b>
<b>Capital and total exposure measure</b>		
20	<b>Tier 1 capital</b>	<b>933 394</b>
21	<b>Leverage ratio total exposure measure</b>	<b>12 349 806</b>
<b>Leverage ratio</b>		
22	<b>Leverage ratio</b>	<b>7.56%</b>
<b>Choice on transitional arrangements and amount of derecognised fiduciary items</b>		
EU-23	Choice on transitional arrangements for the definition of the capital measure	transitional

The table below presents the reconciliation of the total exposure for calculating the leverage ratio to the value of the assets in the Bank's published financial statements for 2018.

		<b>31.12.2018</b>
		<b>Applicable Amount</b>
1	Total assets as per published financial statements	12 385 908
4	Adjustments for derivative financial instruments	(3 314)
6	Adjustment for off-balance sheet items (ie conversion to credit equivalent amounts of off-balance sheet exposures)	160 528
EU-6A	(Adjustment for intragroup exposures excluded from the leverage ratio total exposure measure in accordance with Article 429(7) of Regulation (EU) No 575/2013)	(74 331)
7	Other adjustments	(118 985)
<b>8</b>	<b>Leverage ratio total exposure measure</b>	<b>12 349 806</b>

Disclosure of qualitative information about the risk of excessive leverage and the factors which affect the leverage ratio.

<b>Disclosure of qualitative items</b>		
1	Description of the processes used to manage the risk of excessive leverage	Bank has the excessive leverage risk management policy. It defines the organizational framework and regulates the process of managing the risk of excessive leverage in the Bank. It contains the scope and division of responsibilities in the management of the risk of excessive leverage, as well as steps of risk management.
2	Description of the factors that had an impact on the leverage Ratio during the period to which the disclosed leverage Ratio refers	Leverage ratio has increased by 0.15 p.p. as at 31th of December 2018 compared to end of December 2017 due to higher total exposure and own funds increase.

The leverage ratio is subject to constant monitoring. The Bank monitors the level of leverage ratio on the basis of quarterly information, analyses possible significant changes and their reasons.

The level of the leverage ratio above 5% is recognised as safe and does not require any additional actions. In case of decline of the ratio below indicated level, the ALCO Committee will consider taking appropriate actions.

In the scope of applicable management information system, the report on the current level of leverage ratio and possible risks regarding maintaining safe levels of the factor, taking into account the influence of current losses and losses possible to predict in the future, the influence of current dynamic and planned dynamics of lending activity is submitted to the ALCO Committee. The process of analysis is implemented through the control of implementation of strategy, plans and financial projection.

## **9. Applied credit risk mitigation techniques**

### **9.1 Assessment of collaterals and their management**

#### *The policies and processes for on- and off-balance sheet netting*

Financial assets and financial liabilities are offset and the net amount is reported in the statement on financial position when there is a legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis, or realise the asset and settle liability simultaneously.

#### *The main types of guarantor and credit derivative counterparty and their creditworthiness*

As at 31 December 2018, the Bank did not own derivative credit instruments.

#### *Collaterals*

Credit risk taken by the Bank by means of providing loan products to clients may be reduced through collaterals. Types of collaterals accepted by the Bank and the principles of their establishment are described in detail in the internal regulations of the Bank.

The rules of valuation of loan collaterals and collateral management are described in applicable policies and procedures of the Bank. An important element of the collateral policy is an assumption that by taking decision on granting of a product that bears credit risk, the Bank aims to obtain a collateral of the highest quality and value adequate to the scale of risk.

Fulfilment of a protective role by a collateral occurs in accordance with conditions discussed in the part "Main types of collaterals". The Bank regularly monitors the quality of collaterals, the monitoring covers in particular the effectiveness of the legal establishment of the collateral, valuation of the collateral and validity of documentation, e.g. assignment of rights from collateral agreement.

#### *Collaterals on real estates*

In the process of granting mortgage loans, the Bank assesses and determines the value of collaterals in accordance with provisions of the Act on Covered bonds and Mortgage Banks and the Regulations of determining the mortgage lending value of the property (hereinafter the Regulations) approved by the PFSA.

The process of determining the mortgage lending value of the property (hereinafter BHWN) is implemented by employees of the Bank who meet competence requirements specified in the Regulations. The basis for determining of BHWN is an expert's opinion on the mortgage lending value developed in accordance with regulations applicable in the Bank. BHWN determined by an employee of the Bank ensures adequacy of collateral over the whole duration of agreement and constitutes a basis for indicating of maximum amount of loan, in accordance with provisions of the Act on Covered bonds and Mortgage Banks.



Retail area (portfolio of loans granted in cooperation with mBank S.A.)

The Bank carefully selects real estates that may constitute a subject of collateral. The scope of process of collateral assessment covers analysis of features of a real estate proposed for collateral and analysis of liquidity of a local market of similar real estate resulting with assignment of a real estate to specified segment, i.e. typical/unusual real estate. Applied segmentation aims to ensure assumed effectiveness of recovery from accepted collateral.

The Bank applies additional limitations in the scope of relation of loan amount to the level of determined actual amount, reflecting the current level of prices for similar real estate available on the market. The indicator may not exceed:

- 80% of determined actual volume for typical residential real estates,
- 70% of determined actual volume for unusual residential real estates.

In case of covering a loan with insurance of low own contribution, the Bank allows for granting of a loan in the amount exceeding the abovementioned ratios, however, not more than up to the established BHWN.

The Bank periodically monitors the value and quality of owned legal collaterals of mortgage loans portfolio. In the scope of this process for residential real estate, the Bank analyses changes in prices of real estates on the market in order to identify evidence of impairment for a credit exposure.

Corporates

The Bank observes the rule that in accordance with the Act on Covered bonds and Mortgage Banks the value of LTV ratio must not exceed 100%. Additional information furthermore, in the Credit Policy of the Bank maximum values of the LTV ratio were determined that depend on the type of financed real estate and are as follow<sup>1</sup>:

- 90% for office, commercial and warehouse properties and
- 80% for housing developers and hotels.

The Bank periodically monitors the value of real estates that are the subject of collateral. The monitoring also covers collaterals entered into the Cover Register. The principles of monitoring of the value of collaterals are described in detailed internal regulations of the Bank.

In the scope of corporate loan monitoring, the legal status of real estates, on which mortgages are established for the Bank, is verified. The verification is done through reviewing of a land register via website of the Ministry of Justice.

The validity of insurance policies of real estates that constitute mortgage collateral for the Bank is monitored and reported to the Management Board of the Bank in monthly cycles.

## **9.2. Main types of collaterals**

Retail

- Mortgage on real estates

A mortgage on a financed (or other) real property is a basic collateral for mortgage loans. The Bank accepts only a first charge mortgage entry. The mortgage registration equals 150% of the original loan

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<sup>1</sup> The Bank defined three levels of criteria: fully accordant with the Credit Policy of the Bank, exclusion from the Credit Policy and not covered by the Credit Policy (knock-out criteria)

exposure. The Bank secures itself only on those real properties the type of right to which was indicated in the Act on Covered bonds and Mortgage Banks (exclusion relates to cooperative ownership right).

- Bridging insurance

For loans, for which the target collateral has the form of a mortgage on a real property, a so- called "bridging insurance" is used up until the time when that mortgage is established.

- Assignment of rights from insurance policy against fire and other accidents of a mortgaged real property

In case of all loans secured with a mortgage on a real property, the Bank requires provision of insurance of a real property against fire and other accidents in the entire duration of the loan agreement.

- Claim for establishing of a mortgage in the future

In case of loans granted for purchase of a real property from a developer, until removal of a purchased real property from a land register kept for a real property covered with investment, a claim for establishing of a mortgage on a purchased real property in the future is entered for the Bank in section IV. This collateral is provided in the Act on Covered bonds and Mortgage Banks and is applied alongside bridging insurance.

- Transfer of receivables from development agreement

In case of loans granted for purchase of a real property from a developer, the Bank requires transfer of receivables resulting from agreement concluded between the developer and the client, which, in case of a failure of a final agreement, secures the Bank's claim in terms of paid amount of loan.

### Corporates

In case of mortgage loans, the basic collateral is a mortgage on a financed real property. The Bank accepts only a first charge mortgage entry. The Bank secures itself only on those real properties the type of right to which was indicated in the Act on Covered bonds and Mortgage Banks.

Additional collateral is applied by the Bank in case of loans in the corporate area:

- declaration of submission to enforcement under Art. 777 of the Code of Civil Procedure;
- assignment from lease agreements;
- assignment from insurance policy;
- pledge on shares of the company owned by the borrower or pledge on shares of the company of the borrower's general partner;
- pledge on the bank account of the borrower;
- power of attorney to the bank account of the borrower;
- promissory note guaranteed by sponsors or partners as a transition collateral until the time of establishing of a mortgage on a real property.

### Public sector

In case of loans for local government units (JST) and loans guaranteed by JST granted to special purpose companies established by them and health care institutions, mandatory legal collaterals of repayment of a granted loan are:

- for JST - Blank promissory note of the Borrower together with bill declaration;
- for health care institutions and special purpose companies established by JST - JST guarantee according to civil law;

The following may constitute an additional collateral of repayment of a loan:

- mortgage on real property;
- assignment of rights from insurance policy of construction against all construction risks of a real property;
- assignment of rights from insurance policy against fire and other accidents of a mortgaged real property;
- assignments or a pledge on receivables due to lease agreements;
- bank guarantee;
- pledge on rights, including pledge on shares of a special purpose company;
- accession to a loan debt.

Values of exposures per type of recognised collateral broken down to exposure classes are presented in Note 6.3 to this document. As a recognition of a collateral, the Bank uses unfunded credit protection in a form of guarantees of local government units that meet the requirements of the CRR Regulation.

### **9.3. Market or credit risk concentration**

Due to the fact that the scope of activity is limited by an act, the Bank is exposed to increased risk of concentration on the real property market. Taking this into account, the Bank aims for maximum available diversification of credit risk and avoiding its excessive concentration, which consists in limiting of involvement in single entities and groups of affiliated investors. Thus understood limitation is achieved through systematic increasing of share of retail mortgage loans in the balance sheet of the Bank.

To actively manage the concentration risk, the Bank has an internal system that limits the market and credit risk concentration. At the same time, the Bank observes supervisory guidelines regarding the limits of lending and concentration. Risk limits are threshold values the observance of which aims to ensure implementation of objectives given the available resources. The structure and the level of limits is established by the Management Board of the Bank, and all cases of exceeding of internal concentration limits are reported to the Management Board of the Bank immediately after their occurrence.

Due to increasingly greater differentiation between particular segments of real property market, the Bank takes into account the concentration into separate types of financed real property while developing the policy of income producing real estate and sales plans as well as in current credit decisions in a given segment. The Bank has established and monitored exposures in particular segments of the real estate market, appropriately to the risk associated with them.

Additionally, the Bank monitors the market for its geographical differentiation in order to identify markets with variable saturation in particular real estate segments. For that reason, the Bank controls the risk resulting from geographical concentration through establishing and monitoring of limits for financing of projects in particular provinces.

Having regard to limitation of concentration of risk resulting from exposure in the same currency, the Bank monitors the currency structure of exposure portfolio on a monthly basis.

The Bank controls the concentration limits of exposures to single entity or group of entities related by equity or organisationally, which amounts to 25% of eligible capital of the Bank, and additionally on a daily basis monitors exposures for exceeding of 10% of the eligible capital of the Bank in relation to a single entity or group of entities related by equity or organisationally.

The Bank analyses key market risk concentrations associated with its operations and business events. Within risk concentration analysis, the Bank monitors e.g. influence of changes of market risk factors, such as: exchange rates, interest rates.

## **10. Credit risk adjustments**

### **10.1. Past due and impaired exposures– definitions used**

#### *Definition of past due exposures*

The exposures against clients, for whom at least one receivable is past due by one or more days, are assumed as past due exposures. Whereby, in case of portfolio granted in cooperation with mBank S.A., the past due exposure is an exposure on delayed contracts (by one or more days). No impairment is recognised in respect of loans and advances past due for less than 90 days, unless other available information indicates their impairment. In rare cases for loans and advances overdue by over 90 days, the Bank does not recognise impairment if there is particular evidence demonstrating lack of impairment of those loans and advances.

#### *Definition of impaired exposures*

The Bank measures impairment for credit exposures in accordance with International Financial Reporting Standard 9.

#### Retail portfolio obtained in cooperation with mBank S.A.

Group credit risk models, in the case of which the Bank is a local user, are used for the purposes of calculating write-downs and provisions for the portfolio obtained within the framework of the cooperation with mBank.

#### Impairment

A credit risk event with respect to which, based on the information held, the Bank concludes that as a result thereof it is likely that the debtor would not repay the particular credit liability in whole without collateral realisation constitutes a ground for impairment of credit exposures of the particular debtor.

For the retail portfolio obtained within the framework of cooperation with mBank S.A., it is assumed that a ground for impairment of a credit exposure occurred if a natural person obliged under the particular product is in default, which means that:

- at least one credit liability of the debtor remains overdue for a period above 90 days and the total overdue amount on all credit exposures of the debtor (overdue above 31 days) exceeds PLN 500;
- one of the customer's transaction is subject to restructuring;
- the credit liability is sold with significant economic credit loss;
- the Bank submits a motion to institute enforcement proceedings, bankruptcy or debt collection proceedings (resulting in possible discontinuation of or delay in repayment by the debtor);
- impairment write-down was made as a result of an explicit deterioration of the customer's creditworthiness.

Grounds for impairment are also recognised in the case of a credit exposure where:

- enforcement proceedings at the court stage are carried out or a contract is prepared to be written off to losses;
- an insurance firm paid a compensation from insurance as a result of low own contribution;
- the particular transaction was deemed fraudulent (falsification of data in documents confirming debtor's identity or pertaining to collateral accepted took place or false data provided therein).

#### Corporate portfolio impairment

In the case of corporate exposures, i.e. all non-retail credit exposures of the Bank (specialist loan portfolio, housing developers, JST portfolio and other commercial exposures), impairment is recognised where, based on an impairment test carried out, a need to create an impairment write-down/provisions was identified. A customer is reclassified to the default category if one or more of the following events occur:

- a) the counterparty/transaction credit quality deteriorates. The Bank concludes that the debtor is likely not to fully satisfy its credit liabilities to the Bank or the parent entity of the Bank without the Bank taking actions, such as realisation of a collateral if any;
- b) delays in payments by more than 90 days took place. Any of the debtor's exposures to the Bank or the parent entity of the Bank, showing features of a credit liability, is overdue for more than 90 days, provided that the overdue amount exceeds PLN 3,000;
- c) the entity is classified to the default category by the parent entity of the Bank.

The following situations constitute hard grounds for recognising a default event and mean deterioration of the customer/transaction credit quality in accordance with the aforementioned definition:

- a) impairment write-off was made as a result of an explicit deterioration of the debtor's creditworthiness.
- b) the Bank sold the exposure with significant economic loss in relation to changes in its creditworthiness;
- c) the Bank authorises forced restructuring of the credit liability if it may result in a reduction of financial liabilities by redeeming a significant part of the liability or deferring payment of the principal, interest or commission if applicable;
- d) the Bank files a bankruptcy petition against the debtor or any similar motion in respect of the debtor's credit liabilities to the Bank or the parent entity of the Bank;
- e) the debtor is declared bankrupt or acquires similar legal protection resulting in avoiding or delaying repayment of credit liabilities to the Bank or the parent entity of the Bank;
- f) the customer commits a fraud (provides false data upon granting the loan or in the process of the loan monitoring, commits credit fraud, etc.);
- g) the agreement is terminated (in whole or in part) and/or debt collection activities are instituted.

In addition to hard grounds for default, the Bank identifies soft grounds for default. A soft ground occurrence does not automatically triggers necessity for classification as a default event. Soft grounds are of supplementary nature. These are the criteria that the Bank should additionally consider when analysing the borrower's situation, and which may indicate its deterioration. If, in the Bank's opinion, soft ground identified are of significant importance in the particular case, the Bank should proceed with an assessment whether a default event occurred regardless of lack of hard grounds.

## **10.2. Quantitative information**

### *Specific and general credit risk adjustments*

While determining the value of exposure, the Bank applies the following adjustments due to particular credit risk:

- adjustments regarding loss impairments of exposures of individual significance,
- adjustments regarding loss impairments of exposures that are not individually significant, determined within group assessment,
- adjustments regarding impairment losses incurred as a result of events that occurred, but were not reported yet (referred to as IBNR impairment losses) for an exposure without recognised impairment.

Due to application of International Financial Reporting Standards, the Bank does not apply adjustments for general credit risk.

### *Retail portfolio obtained in cooperation with mBank S.A.*

Revaluation write-downs and provisions are calculated at the level of a single contract by measuring expected credit loss (ECL). In the portfolio approach, expected credit losses are a product of individual PD, LGD and EAD parameters estimated for each exposure, and the final value of expected credit losses is a sum of expected credit losses in particular periods discounted by the effective interest rate. If, as at the reporting date, the exposure credit risk did not increase significantly since the initial recognition, the Bank calculates write-downs and provisions in the amount equal to 12-month expected credit losses (12m ECL). If the exposure credit risk increased significantly since the initial recognition (exposure is in stage 2), the Bank calculates impairment write-downs and provisions for credit risk in the amount equal to life-time expected credit losses (Lt ECL). An expected loss is measured for non-zero exposures that are active at the reporting date (balance sheet and off-balance sheet). An expected credit loss is estimated separately for the balance sheet and off-balance-sheet part of the exposure. The parameters used to calculate an expected credit loss in Stage 1 are identical to those used to calculate a long-term credit loss in Stage 2 for  $t=1$ , where 't' stands for the first year of the forecast.

### Use of macroeconomic scenarios in ECL estimation

The Bank is required to set an expected credit loss in a way which meets the expectations for various forward-looking macroeconomic scenarios in case of portfolio estimation of ECL. Therefore, in the case of portfolio ECL estimation, the non-linearity factor (NLF) is set in order to adjust the value of an expected credit loss (calculated every month). The NLF factor is determined at least once a year. NLFs are used as scaling factors for individual ECLs (both 12-month and lifetime) that are determined at the level of individual exposures. NLFs are calculated based on results from 3 simulation calculations as at the same reporting date, which result from relevant macroeconomic scenarios.

In particular, NLF is calculated as:

1. the probability-weighted average of the expected loss from 3 macroeconomic scenarios (so-called "average estimation") comprising:
  - a. baseline scenario,
  - b. optimistic scenario,
  - c. pessimistic scenario;
2. divided by the expected loss determined under baseline scenario (reference estimate).

Simulation calculations, whose results are used to calculate NLF, are carried out on the basis of the same input data on exposure characteristics, but involve different risk parameter vectors, if the macroeconomic expectations defined in the scenarios are such as to affect the value of these parameters.

#### Portfolio of commercial loans, JST and other retail loans

Revaluation write-downs and provisions are calculated at the level of a single contract by measuring expected credit loss (ECL). In the portfolio approach, expected credit losses are a product of individual PD, LGD and EAD parameters estimated for each exposure, and the final value of expected credit losses is a sum of expected credit losses in particular periods; the discounting element with respect to expected losses calculated for individual periods is included in the EAD parameter. If, as at the reporting date, the exposure credit risk did not increase significantly since the initial recognition, the Bank calculates write-downs and provisions in the amount equal to 12-month expected credit losses (12m ECL). If the exposure credit risk increased significantly since the initial recognition (exposure is in stage 2), the Bank calculates impairment write-downs and provisions for credit risk in the amount equal to life-time expected credit losses (Lt ECL). An expected loss is measured for non-zero exposures that are active at the reporting date (balance sheet and off-balance sheet). An expected credit loss is estimated separately for the balance sheet and off-balance-sheet part of the exposure. The parameters used to calculate an expected credit loss in Stage 1 are identical to those used to calculate a long-term credit loss in Stage 2 for  $t=1$ , where 't' stands for the first year of the forecast.

In the individual approach (all balance sheet and off-balance sheet credit exposures with an impairment in the corporate loan portfolio are treated as individually significant), the expected credit losses are calculated as a difference between the gross carrying amount of the asset and the present value of the estimated future cash flows discounted with the effective interest rate. The method of calculating the expected recoveries takes place in scenarios and depends on the Bank's chosen strategy for the customer. In case of restructuring strategy, the scenarios considered assume a significant share of recoveries from the customer's own payments. In case of debt recovery strategy, the scenarios are based on collateral recoveries.

#### Use of macroeconomic scenarios in ECL estimation

The Bank is required to set an expected credit loss in a way which meets the expectations for various forward-looking macroeconomic scenarios in case of portfolio estimation of ECL. Therefore, in the case of portfolio ECL estimation, this element is taken into account in the process of PD determination.

Determination of the risk of corporate customer's insolvency within the credit maturity horizon is based on generation of income from lease of various properties, taking into account models of risk factors affecting changes in the amount of such income. As part of the modelling process, both specific market data (exchange rates, interest rates) as well as specific property data (expected revenue forecasts, scheduled liabilities) are subject to distortions in order to determine the value of revenues, liabilities, property value and LTV ratios over the loan maturity horizon. The likelihood of an adverse economic situation, which may lead to or contribute to default, is modelled on the basis of a set of default conditions (independent of the regulatory definition of default), in a Monte Carlo simulation, which ensures that a wide range of scenarios for possible future macroeconomic developments considered.

In case of assets for which a permanent impairment was identified, the Bank executes stricter monitoring, e.g. revaluation of the mortgage lending value of the property constituting collateral of a loan.

#### Subjective distribution of exposures

The distribution of gross exposure of the Bank broken down by exposure classes and depending on the type of counterparty is presented below. The summary includes the division into the value of exposures for standard and IRB methods.

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		a)	b)
		Net value of exposures at the end of the period	Average net exposures over the period
3	Corporates	6 207 081	6 140 090
4	Of which: Specialised lending	6 207 081	6 140 090
5	Of which: SMEs	6 207 081	6 140 090
<b>15</b>	<b>Total IRB approach</b>	<b>6 207 081</b>	<b>6 140 090</b>
16	Central governments or central banks	1 085 686	1 222 822
17	Regional governments or local authorities	57 003	59 344
18	Public sector entities	53 436	56 224
21	Institutions	130 335	100 603
22	Corporates	69 891	72 251
23	Of which: SMEs	69 891	72 251
24	Retail	792 092	960 910
26	Secured by mortgages on immovable property	5 418 479	5 211 772
27	Of which: SMEs	19 881	50 480
28	Exposures in default	14 028	11 722
33	Equity exposures	8	8
<b>35</b>	<b>Total standardised approach</b>	<b>7 620 958</b>	<b>7 695 656</b>
<b>36</b>	<b>Total</b>	<b>13 828 039</b>	<b>13 835 746</b>

*Geographical breakdown of exposures*

The summary of exposures per geographical breakdown and exposure classes as at 31 December 2018 is presented below

		a)	b)	c)	d)	e)	m)
		Net value					
		Poland	Austria	Switzerland	Belgium	Great Britain	Total
3	Corporates	6 207 081	-	-	-	-	6 207 081
<b>6</b>	<b>Total IRB approach</b>	<b>6 207 081</b>	-	-	-	-	<b>6 207 081</b>
7	Central governments or central banks	1 085 686	-	-	-	-	1 085 686
8	Regional governments or local authorities	57 003	-	-	-	-	57 003
9	Public sector entities	53 436	-	-	-	-	53 436
12	Institutions	74 331	-	-	-	56 004	130 335
13	Corporates	69 891	-	-	-	-	69 891
14	Retail	792 092	-	-	-	-	792 092
15	Secured by mortgages on immovable property	5 417 958	13	508	-	-	5 418 479
16	Exposures in default	14 028	-	-	-	-	14 028
21	Equity exposures	-	-	-	8	-	8
<b>23</b>	<b>Total standardised approach</b>	<b>7 564 425</b>	<b>13</b>	<b>508</b>	<b>8</b>	<b>56 004</b>	<b>7 620 958</b>
<b>24</b>	<b>Total</b>	<b>13 771 506</b>	<b>13</b>	<b>508</b>	<b>8</b>	<b>56 004</b>	<b>13 828 039</b>



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*Concentration of exposures by industry or counterparty types*

	c)	e)	f)	g)	i)	l)	m)	p)	r)	s)	t)	u)	
	Manufacturing	Water supply	Construction	Wholesale and retail trade	Accommodation and food service activities	Real estate activities	Professional, scientific and technical activities	Public administration and finance, compulsory social security	Human health services and social work activities	Arts, entertainment and recreation	Other services	Other	Total
3 Corporates	-	-	2 458 796	-	14 680	3 535 651	197 954	-	-	-	-	-	6 207 081
<b>6 Total IRB approach</b>	-	-	<b>2 458 796</b>	-	<b>14 680</b>	<b>3 535 651</b>	<b>197 954</b>	-	-	-	-	-	<b>6 207 081</b>
7 Central governments or central banks	-	-	-	-	-	-	-	-	-	-	-	1 085 686	1 085 686
8 Regional governments or local authorities	-	-	-	-	-	-	-	57 003	-	-	-	-	57 003
9 Public sector entities	-	-	-	-	-	-	-	-	43 267	10 169	-	-	53 436
12 Institutions	-	-	-	-	-	-	-	-	-	-	-	130 335	130 335
13 Corporates	-	1 275	-	-	-	6 413	-	-	-	62 203	-	-	69 891
14 Retail	-	-	-	-	-	-	-	-	-	-	-	792 092	792 091
15 Secured by mortgages on immovable property	989	-	1 208	-	525	17 160	-	-	-	-	-	5 398 597	5 418 478
16 Exposures in default	-	-	9	-	-	23	-	933	-	-	-	13 063	14 027
21 Equity exposures	-	-	-	-	-	-	-	-	-	-	-	8	8
<b>23 Total standardised approach</b>	<b>989</b>	<b>1 275</b>	<b>1 217</b>	-	<b>525</b>	<b>23 596</b>	-	<b>57 936</b>	<b>43 267</b>	<b>72 372</b>	-	<b>7 419 779</b>	<b>7 620 955</b>
<b>24 Total</b>	<b>989</b>	<b>1 275</b>	<b>2 460 013</b>	-	<b>15 205</b>	<b>3 559 247</b>	<b>197 954</b>	<b>57 936</b>	<b>43 267</b>	<b>72 372</b>	-	<b>7 419 779</b>	<b>13 828 036</b>

*The residual maturity breakdown of exposures*

The summary of exposures per residual maturity dates broken down by applied methods and exposure classes within a method as at 31 December 2018 is presented below

	a)	b)	c)			d)	e)	f)
	Net exposure value							
	On demand	<= 1 year	> 1 year <= 5 years	> 5 years	No stated maturity	Total		
3 Corporates	-	159 352	1 128 117	3 440 221	-	4 727 690		
<b>6 Total IRB approach</b>	-	<b>159 352</b>	<b>1 128 117</b>	<b>3 440 221</b>	-	<b>4 727 690</b>		
7 Central governments or central banks	16 293	377 879	540 830	150 683	-	1 085 685		
8 Regional governments or local authorities	-	120	8 400	48 483	-	57 003		
9 Public sector entities	-	-	10 168	43 267	-	53 435		
12 Institutions	58 431	31 943	-	39 961	-	130 335		
13 Corporates	-	1 275	455	68 161	-	69 891		
14 Retail	-	-	2 633	795 640	-	798 273		
15 Secured by mortgages on immovable property	-	684	34 889	5 352 561	-	5 388 134		
16 Exposures in default	-	44	1 324	12 097	-	13 465		
21 Equity exposures	-	-	-	-	8	8		
<b>23 Total standardised approach</b>	<b>74 724</b>	<b>411 945</b>	<b>598 699</b>	<b>6 510 853</b>	<b>8</b>	<b>7 596 229</b>		
<b>24 Total</b>	<b>74 724</b>	<b>571 297</b>	<b>1 726 816</b>	<b>9 951 074</b>	<b>8</b>	<b>12 323 919</b>		

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*Credit quality of exposures by exposure class and instrument*

		a)	b)	c)	g)
		Gross value (balance and off-balance sheet)		Specific credit risk adjustment	Net values (a+b-c)
		Defaulted exposures	Non-defaulted exposures		
3	Corporates	384 319	5 973 026	150 264	6 207 081
4	Of which: Specialised lending	384 319	5 973 026	150 264	6 207 081
5	Of which: SMEs	384 319	5 973 026	150 264	6 207 081
<b>15</b>	<b>Total IRB approach</b>	<b>384 319</b>	<b>5 973 026</b>	<b>150 264</b>	<b>6 207 081</b>
16	Central governments or central banks	-	1 085 686	-	1 085 686
17	Regional governments or local authorities	-	57 020	17	57 003
18	Public sector entities	-	53 452	16	53 436
21	Institutions	-	130 335	-	130 335
22	Corporates	-	69 912	21	69 891
23	Of which: SMEs	-	69 912	21	69 891
24	Retail	-	793 874	1 782	792 092
26	Secured by mortgages on immovable property	-	5 426 390	7 911	5 418 479
27	Of which: SMEs	-	19 927	46	19 881
28	Exposures in default	23 790	-	9 762	14 028
33	Equity exposures	-	8	-	8
<b>35</b>	<b>Total standardised approach</b>	<b>23 790</b>	<b>7 616 677</b>	<b>19 509</b>	<b>7 620 958</b>
<b>36</b>	<b>Total</b>	<b>408 109</b>	<b>13 589 703</b>	<b>169 773</b>	<b>13 828 039</b>
38	Of which: Debt securities	-	1 069 392	-	1 069 392
39	Of which: Off-balance-sheet exposures	563	1 505 866	2 313	1 504 115

*Credit quality of exposures by industry or counterparty types*

		a)	b)	c)	g)
		Gross value (balance and off-balance sheet)		Specific credit risk adjustment	Net values (a+b-c)
		Defaulted exposures	Non-defaulted exposures		
3	Manufacturing	-	990	1	989
5	Water supply	-	1 275	-	1 275
6	Construction	187 759	2 334 204	61 950	2 460 013
7	Wholesale and retail trade	-	-	-	-
9	Accommodation and food service activities	-	15 231	26	15 205
11	Real estate activities	198 359	3 450 733	89 842	3 559 247
12	Professional, scientific and technical activities	-	198 212	258	197 954
14	Public administration and defence, compulsory social security	1 000	57 020	84	57 936
16	Human health services and social work activities	-	43 280	13	43 267
17	Arts, entertainment and recreation	-	72 393	22	72 372
18	Other services	-	-	-	-
	Other	20 991	7 416 365	17 577	7 419 781
<b>19</b>	<b>Total</b>	<b>408 109</b>	<b>13 589 703</b>	<b>169 773</b>	<b>13 828 039</b>

*Credit quality of exposures by geography*

		a)		b)	c)	g)
		Gross value (balance and off-balance sheet)			Specific credit risk adjustment	Net values (a+b-c)
		Defaulted exposures	Non-defaulted exposures			
1	Poland	408 109	13 533 170		169 773	13 771 506
2	Austria	-	13		-	13
5	Switzerland	-	508		-	508
6	Belgium	-	8		-	8
7	Great Britain	-	56 004		-	56 004
<b>8</b>	<b>Total</b>	<b>408 109</b>	<b>13 589 703</b>		<b>169 773</b>	<b>13 828 039</b>

*Ageing of past-due exposures*

		a)	b)	c)	d)	e)	f)
		Gross carrying values					
		≤ 30 days	> 30 days ≤ 60 days	> 60 days ≤ 90 days	> 90 days ≤ 180 days	> 180 days ≤ 1 year	> 1 year
1	Loans	366 671	59 086	5 313	9 454	23 945	188 720
<b>3</b>	<b>Total Exposures</b>	<b>366 671</b>	<b>59 086</b>	<b>5 313</b>	<b>9 454</b>	<b>23 945</b>	<b>188 720</b>

*Non-performing and forborne exposures*

		a)	b)	c)	d)	e)	f)	g)	h)		i)	j)	k)	l)	m)
		Gross carrying values of performing and non-performing exposures								Accumulated impairment and provisions and negative fair value adjustments due to credit risk				Collaterals and financial guarantees received	
		Of which performing but past due > 30 days and ≤ 90 days		Of which performing forborne	Of which non-performing					On performing exposures		On non-performing exposures		On non-performing exposures	Of which forborne exposures
					Of which defaulted	Of which impaired	Of which forborne			Of which forborne		Of which forborne			
010	Debt securities	1 069 392	-	-	-	-	-	-	-	-	-	-	-	-	-
020	Loans and advances	11 275 355	50 381	44 815	408 642	405 713	406 258	268 974	22 004	638	145 456	94 984	255 946	144 477	
030	Off-balance-sheet exposures	1 506 428	-	-	563	563	-	-	2 313	-	-	-	-	80	

*Changes in the stock of general and specific credit risk adjustments*

		a)
		Accumulated specific credit risk adjustment
<b>1</b>	<b>Opening balance</b>	<b>116 674</b>
2	Increases due to amounts set aside for estimated loan losses during the period	41 799
3	Decreases due to amounts reversed for estimated loan losses during the period	(7 083)
4	Decreases due to amounts taken against accumulated credit risk adjustments	(7 390)
5	Transfers between credit risk adjustments	-
6	Impact of exchange rate differences	1 364
7	Business combinations, including acquisitions and disposals of subsidiaries	-
8	Other adjustments	-
<b>9</b>	<b>Closing balance</b>	<b>145 364</b>
10	Recoveries on credit risk adjustments recorded directly to the statement of profit or loss	-
11	Specific credit risk adjustments directly recorded to the statement of profit or loss	-

*Changes in the stock of defaulted and impaired loans and debt securities*

		a)
		Gross carrying value defaulted exposures
<b>1</b>	<b>Opening balance</b>	<b>339 514</b>
2	Loans and debt securities that have defaulted or impaired since the last reporting period	73 041
3	Returned to non-defaulted status	(3 028)
4	Amounts written off	(7 461)
5	Other changes	5 480
<b>6</b>	<b>Closing balance</b>	<b>407 546</b>

*CRM techniques – Overview*

		b)	d)
		Exposures secured – Carrying amount	Exposures secured by financial guarantees
1	Total loans	123 327	123 327
<b>3</b>	<b>Total exposures</b>	<b>123 327</b>	<b>123 327</b>

## 11. Operational risk

By operational risk the Bank understand a possibility to incur loss resulting from inadequate or defective internal processes, systems, errors or activities undertaken by an employee of the Bank and external events.

While organizing the operational risk management process, the Bank takes into account regulatory requirements. Resolutions, as well as recommendations of the Financial Supervision Authority (in particular including Recommendation M) constitute starting point for preparation of the framework of control system and operational risk management.

The general principle of operational risk management in the Bank is its minimisation - limitation of causes of occurrence of operational events, reduction of probability of their occurrence and the severity of potential effects.

Operational risk control and management consists of a set of activities aimed at identifying, monitoring, measurement, assessment, reporting as well as reduction, avoidance, transfer or acceptance of operational risk, the Bank is exposed to in particular areas of its operations. It is based on quantitative and qualitative methods and tools for operational risk control.

mBank Hipoteczny is a specialised bank, established and operating on the basis of the Act of Covered bonds and Mortgage Banks. Its basic specialisation consists in ability to issue mortgage covered bonds and public sector covered bonds that constitute key sources of financing in the bank's balance sheet. This specialisation determines limited product range of the Bank. In 2018, the Bank offered mortgage loans to finance real estate in two business lines - Commercial Banking and Retail Banking. The Bank's own sales carried out by the Bank's specialists is the main source of acquiring corporate customers.

In 2018, in the case of retail customers, the Bank acquired retail debts by regular pooling transaction, i.e. taking over mortgage loans granted by mBank S.A. that might provide a basis for issuing covered bonds (as of 22 July 2017, the process of sales of retail mortgaged loans was transferred to mBank S.A.).

In 2018, the Bank developed a new business structure, which resulted in the next step after transferring sales of retail loans to mBank in 2017 – a change of the banking operation profile.

As of January 2019, the commercial loan portfolio, alike the retail mortgage loan portfolio, will be developed in close cooperation with mBank, i.e. assuming sales by mBank resources both in the retail area, within the existing cooperation model as well as in the commercial area, in the context of the activity model changes.

Together with the sales process, operating risk related to the loan sale stage was transferred. This results in reducing the Bank's operating risk level, but involves the growth of materiality of activities entrusted as part of outsourced processes related to the loan acquisition processes by pooling and loan portfolio maintenance. Outsourcing processes are subject to continuous monitoring.

The Bank has in place a fraud detection and operational risk management mechanism made up of the process of discovering fraud and recording and analyzing transaction errors and customers' complaints.

On a daily basis, the Bank monitors any changes affecting the operational risk profile. So far, the data collected does not indicate any increase of the operational risk in the retail and commercial banking line. Following the assignment of the retail loan sale process to mBank, the Bank does not expect any increased operating losses in that business line. However, both the maintained retail portfolio and the one acquired through pooling are continuously monitored.

The Bank has Business Continuity Plan that was implemented and tested within implementation of Recommendation D.

Within classification of the Bank's activity, in accordance with the CRR Regulation, the following business lines are separated:

- Trading and sales,
- Commercial banking,
- Retail banking,
- Payments and settlement.

In 2018, the risk profile did not change in comparison with the previous year. The Bank recorded three operational events resulting in actual losses for the total amount of PLN 71.2 thousand. All losses result from events (in accordance with appendix 1 to Recommendation M) in category 7. Execution of transactions, delivery and operational processes management. The loss comprised costs of court proceedings and provisions for disputable matters. As they were due to the outsourcing process, the Bank immediately took steps aimed at identifying the error location and reason, and implemented recovery recommendations. Remaining operational events identified in 2018 demonstrated features of unrealised effects, i.e. the effects that were not recognised in the profit and loss account or equity of the Bank. Losses in the Bank are monitored by the following risk categories:

- Crimes committed by employees,
- Crimes committed by outsiders,
- Staff habits and workplace safety,
- Customers, products and business practices,
- Natural disasters and public safety,
- IT irregularities,
- Execution, delivery and process management.

With application of database, information on losses resulting from operational risk are recorded with a focus on the reason of their occurrence and analysing for necessary corrective actions.

To calculate the requirement for operational risk, the bank uses the Basic Indicator Approach – BIA. The basic indicator is calculated on the basis of an average sum of results for the period of three years. As at the end of 2018, the requirement for operational risk is PLN 20 170 thousand.

## **12. Remuneration policy in respect of persons having significant influence on the risk profile of the Bank**

In accordance with Regulation (EU) No 575/2013 of the European Parliament and the Council of the European Union of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012 and the Act of 29 August 1997 – Banking Law (Journal of Laws of 2015, item 128, as amended), Bank Hipoteczny S.A. (hereinafter referred to as the “Bank”) is obliged to announce, in a generally available way, qualitative and quantitative information pertaining to the remuneration policy.

### ***Information on the policy of variable remuneration***

Principles of establishing variable remuneration components of persons holding managerial positions, who have significant influence on the risk profile of the Bank are specified by “Policy for remuneration of persons having significant influence on the risk profile of mBank Hipoteczny S.A.”, hereinafter referred to as “Policy”, was adopted for the first time by Resolution of the Supervisory Board No. 21/2012 as at 19 September 2012. Since then, the Remuneration Policy has been subject to annual verification and modification by the Management Board and the Supervisory Board of the Bank. Last policy in the mBank in 2018 was approved by Resolution of the Supervisory Board No. 37/2018 as at 23 November 2018 and amended by Resolution of the Supervisory Board No. 39/2018 as at 14 December 2018 introducing ordinal corrections of content. Remuneration Policy is compliant with:

- 1/ Guidelines of EBA (European Banking Authority) on sound remuneration policies under Articles 74(3) and 75(2) of Directive 2013/36/UE and disclosures under Article 450 of Regulation (EU) No 575/2013 – EBA/GL/2015/22 of 27 June 2016;
- 2/ Act of 29 August 1997 – Banking Law implementing Directive 2013/36/UE of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC;
- 3/ Regulation of the Minister of Development and Finance of 6 March 2017 on the risk management system and internal control system, the remuneration policy and detailed conditions of internal capital assessment by banks.

The purpose of adopted Policy is to support proper and effective risk management, provision of making decisions not burdened with excessive risk, i.e. risk going beyond accepted by the Supervisory Board willingness to take risks by the Bank and to support implementation of strategy and limitation of conflicts of interest.

The Bank is obliged to keep the list of persons, whose professional activities significantly affect the risk profile, referred to in Article 9ca section 1 of the Act – Banking Law and Regulation of the Minister of Development and Finance of 6 March 2017 on the risk management system and internal control system, the remuneration policy and detailed conditions of internal capital assessment by banks (Journal of Laws of 24 March 2017, item 637).

The list of positions having significant influence on the Bank’s risk profile including justification of their selection are specified in a separate document accepted by the Bank’s Management Board and Supervisory Board - “Policy of identification of employees having significant influence on the bank’s risk profile”, corresponding to the requirements of Commission Delegated Regulation (EU) no. 604/2014 dated 4 March 2014 that supplements the directive of the European Parliament and Council 2013/36/UE in relation to regulatory technical standards in relation to quality criteria and appropriate quantitative criteria of determining of categories of employees, whose professional activity has significant influence on the risk profile of the institution.

The development, implementation and enforcement of the RT Remuneration Policy is the responsibility of the Management Board of the Bank. Works on the development of the RT Remuneration Policy are

initiated by the Organisation Management Department of mBank S.A., in cooperation with organisational units of the Bank responsible for risk management, legal issues and Compliance.

The Supervisory Board is the governing body that supervise remunerations.

The aforementioned regulations were developed and are verified on an annual basis by a team of employees responsible for HR, risk management, legal issues and compliance.

In 2018 there were four meetings of the Supervisory Board.

The Bank did not use services of an external consultant while establishing "Policy for remuneration of persons having significant influence on the risk profile of mBank Hipoteczny S.A." and "Policy of identification of employees having significant influence on the bank's risk profile."

### ***The most important information concerning the formation of remuneration***

Variable remuneration includes bonuses granted to a member of the Management Board or other employees for a given financial year. Variable remuneration is established in a transparent manner, possible to verify, ensuring effective implementation of the Policy. The maximum level of the amount of variable remuneration components of persons covered by the Policy may not exceed 100% of the basic remuneration paid to a given employee for a financial year.

Variable remuneration is part of total remuneration (annual basic remuneration and variable remuneration) for Management Board members or other employees. Variable remuneration is established taking into account market practices, in both banking sector and nationwide market, verified on the basis of market payroll reports and remuneration policy of the mBank Group.

A part of variable remuneration is paid in phantom shares. The number of phantom shares, which will be established for a member of the Management Board or other employee for a given financial year on the account of variable remuneration (both non-deferred and deferred part), constitutes a result of dividing the amount of the variable remuneration established in accordance with the Policy principles by the value of a phantom share at the end of financial year for which the remuneration is established.

The value of phantom share is the quotient of book value of the shares of the Bank and the number of ordinary shares, where the book value of the Bank is defined as: total assets reduced by total liabilities of the Bank. The book value of the Bank and the number of ordinary shares are derived from the financial statement of the Bank for a financial year for which variable remuneration is granted after its previous approval by the Supervisory Board. The number of phantom shares can take fractional values and is rounded to 4 decimal places.

### ***Members of the Management Board***

The amount of bonus for particular members of the Management Board is established by the Supervisory Board which takes into account whether a member of the Management Board completed an established annual/multi-annual business and development objective - Management By Objective ("MBO"). The decision on granting of a bonus and its amount is the exclusive competence of the Supervisory Board which according to its own assessment and decision confirms achieving of MBO, taking into account situation on financial markets in the last/previous financial periods.

Variable remuneration is granted in accordance with the following rules:

- 60% of the bonus amount is granted in the year following a given financial year (non-deferred bonus):
- 50% in a form of cash payment,
- 50% in a form of non-cash payment in phantom shares of the Bank (not earlier than after a 12-month deferral period),

- 40% of the bonus will be deferred to three successive years in three equal, annual tranches. Bonus within each tranche is granted to a member of the Management Board upon meeting of specified conditions, in an analogous manner as 60% of the bonus amount granted after the financial year for which the bonus is calculated, i.e.:
- 50% in a form of cash payment,
- 50% in a form of non-cash payment in phantom shares of the Bank (not earlier than after a 12-month deferral period),

Employees who are not members of the Management Board:

The Management Board of the Bank performs annual assessment of employees over a longer time horizon. If it concludes that the annual/multi-annual business and development objective ("MBO") was achieved, after taking into account the total remuneration of the employee, it can take a decision on the amount of so-called discretionary bonus. The decision on the discretionary bonus amount is in sole discretion of the Management Board of the Bank that confirms achieving the MBO, on the basis of its own assessment and decision, taking into account situation in financial markets in the last/previous financial period.

MBOs are set by the Management Board of the Bank (objectives arise directly from objectives set for the Management Board of the Bank – objective cascading to the next level) for the next financial year, within the time frame complying with the schedule for the particular year.

Variable remuneration is awarded in accordance with the following principles:

- 1) 60% of the bonus amount is granted to the employee in the next year after the particular financial year:
  - 50% in form of cash payment,
  - 50% in form of non-cash payment, in phantom shares of the Bank (not earlier than after a 12-month deferral period);
- 2) 40% of the bonus is deferred to three successive years in three equal, annual tranches. Bonus within each tranche is granted to the employee upon meeting specified conditions, in an analogous manner as 60% of the bonus amount granted after the financial year for which the bonus is calculated, i.e.:
  - 50% in form of cash payment,
  - 50% in form of non-cash payment, in phantom shares of the Bank (not earlier than after a 12-month deferral period).

If the variable remuneration amount granted to the employee does not exceed PLN 200 thousand, the Management Board of the Bank can take a decision not to defer the variable remuneration to subsequent year and award the whole amount of the variable remuneration in form of non-deferred cash payment. The limit for the payment of the variable remuneration component to employees who are not members of the Bank's Management Board, has been introduced taking into account local conditions pertaining to the level of remuneration in key positions and having in mind a unification of the principles for payment of variable remunerations adopted in the group remuneration policy of mBank.

The costs resulting from the deferred tranches in the form of the shares are settled according to the IFRS.



***Information on the criteria of performance assessment, which are the basis for the rights to the remuneration components***

*Members of the Management Board*

Deferred tranches of the bonus granted for a given accounting year shall be issued for a member of the Management Board in three equal, annual parts.

The Supervisory Board may decide to suspend in whole or reduce the amount of deferred tranche due to subsequent evaluation of work of a member of the Management Board in a term longer than 1 financial year (i.e. for a period of at least 3 years) which takes into account the business cycle of the Bank as well as risk associated with conducting activity by the Bank, but only when actions or omissions of a member of the Management Board had direct or negative impact on financial result and market position of the Bank in the period of assessment. The aforementioned assessment of the performance of member of the Management Board (over a longer period of time) will be made annually and communicated internally at the Bank, together with the assessment of the performance of the member of the Management Board for a given period.

The Supervisory Board may decide to suspend in whole or to reduce the amount of bonus for a given financial year, also in terms of deferred tranche that has not been paid yet, in a situation referred to in Art. 142 (2) of the Banking Law Act. Suspending in whole or reduction of a bonus, as well as any deferred tranche, may also relate to a bonus and/or deferred tranche not paid to a member of the Management Board after expiration or termination of the management agreement.

If the Supervisory Board of the Bank concludes that a member of the Management Board of the Bank, by his/her acts and omissions, breached principles and norms adopted in the mBank Group, committed a gross breach of universal legal regulations, caused directly significant financial losses resulting from deliberate negative acting to the detriment of mBank Group or caused imposing financial sanctions of the company by supervisory authorities based on a legal and final decision, the member of the Management Board of the Bank can be obliged, in accordance with the principles and within the time frame set in a decision of the Supervisory Board, to return the bonus granted and paid for the particular calendar year (i.e. non-deferred portion and all deferred portions), in which the event took place.

*Employees who are not members of the Management Board:*

The deferred tranches of the discretionary bonus for a given accounting year will be issued for the employee in three equal, annual parts.

The Management Board of the Bank may decide to suspend in whole or reduce the amount of deferred tranche:

- if it finds that in a longer-term (period of at least 3 years) an employee through its actions or omissions directly and negatively impacted financial result and market position of the Bank in the assessment period. In the assessment of actions or omissions of an employee the Management Board of the Bank takes into account e.g. results of the MBO assessment of the employee,
- in case of termination of an employment contract with the exclusion of reasons specified in the employment contract/internal regulations of the Bank.

The Supervisory Board may decide to suspend in whole or to reduce the amount of discretionary bonus for a given financial year, as well as in terms of deferred tranche that has not been paid yet, in case of a balance sheet loss or threat of its occurrence or a risk of insolvency or losing of liquidity by the Bank.

If the Management Board of the Bank concludes that an employee, by his/her acts and omissions, breached principles and norms adopted in the mBank Group, committed a gross breach of universal legal regulations, caused directly significant financial losses resulting from deliberate negative acting to the detriment of mBank Group or caused imposing financial sanctions of the company by supervisory authorities based on a legal and final decision, an employee can be obliged, in accordance with the

principles and within the time frame set in a decision of the Supervisory Board, to return the bonus granted and paid for the particular calendar year (i.e. non-deferred portion and all deferred portions), in which the event took place.

***Main parameters and rules for determining of remunerations of persons holding managerial positions in mBank Hipoteczny S.A., including the manner of linking of the amount of remuneration with results in case of remunerations depending on the results.***

*Members of the Management Board*

The decision on granting of a bonus and its amount is the exclusive competence of the Supervisory Board which according to its own assessment and decision confirms achieving of MBO, taking into account situation on financial markets in the last/previous financial periods. The Manager, until the end of March of a financial year following the financial year for which the so called discretionary bonus is determined, will submit to the Supervisory Board a written report on implementation of MBO for a financial year for which a discretionary bonus is determined. MBO will be determined by the Supervisory Board in consultation with the Manager for subsequent financial year until 31 December of the year preceding the financial year.

*Employees who are not members of the Management Board:*

Variable remuneration for employees who are not members of the Board shall be granted by the Bank's Management Board, which on the basis of the results achieved under the annual/long-term business-development objective - Management By Objectives ("MBO" defined according to the aforementioned description), after taking into account the value of the total remuneration of an employee (i. a. comparison of the employee's remuneration to the market benchmark provided by an external company specializing in the development of such data), determines the amount of the so-called discretionary bonus. Bonus is not automatically calculated and its awarding and amount depend on a joint decision of the Management Board of the Bank.

This document presents the Policy for remuneration of persons having significant influence on the risk profile of the Bank that was approved in December 2018. Remuneration programmes that were in force in previous years which were not settled yet are described in the Bank's financial statements in Note 39.

***Aggregated quantitative information on remuneration broken down into senior management and employees whose actions have significant influence on the Bank's risk profile:***

Aggregated quantitative information regarding remuneration broken down into areas of activity (in PLN thousand):

<b>Business Line</b>	<b>Total remuneration (fixed + variable)</b>
Management Board Members	4 266
Other Risk Takers	4 321
<b>Total</b>	<b>8 587</b>

Collective qualitative information about the remuneration of persons in managerial positions at mBank Hipoteczny S.A.

Number of persons		Management Board Members	Other Risk Takers
		4	11
Fixed remuneration paid in 2018		2 331	2 744
Variable remuneration for 2018 <sup>1</sup>		-	-
Non-deferred part	Cash	-	-
	Financial instrument - number of shares	-	-
	Financial instrument - amount of the component <sup>2</sup>	-	-
Deferred part	Cash	-	-
	Financial instrument - number of shares	-	-
	Financial instrument - amount of the component <sup>2</sup>	-	-
Variable remuneration awarded in the previous years - paid in 2018 <sup>3</sup>	Cash	519	826
	Financial instrument - number of shares	1710.84 shares	534.9 shares
	Financial instrument - amount of the component <sup>2</sup>	563	176
Variable remuneration awarded in the previous years - deferred <sup>3</sup>	Cash	426	169
	Financial instrument - number of shares	1393.08 shares	598.81 shares
	Financial instrument - amount of the component <sup>2</sup>	426	169
Amount of deferred remuneration awarded in 2018, paid and reduced due to the adjustment made on account of results		-	-
Payments related to commencement and termination of the employment relationship - severance pay	Number of persons	-	-
	Value	-	-
	Highest payment	-	-
Number of persons who received total remuneration in the amount of at least EUR 1 million (remuneration in the range between EUR 1M – 1.5M)		-	-
Deferred variable remuneration paid in 2018 to former Risk Takers			118
Former Risk Takers' variable remuneration deferred to the next years			120

<sup>1</sup> As at the date of publishing this report, the variable remuneration for 2018 for the employees indicated in the table above has not yet been approved by competent authorities of the Bank. This document will be modified by including in it information on the variable remuneration for 2018 awarded in 2019, after the Annual General Meeting approves the financial statements for 2018.

<sup>2</sup> As per the value on the award date.

<sup>3</sup> Together with the variable remuneration paid to the Risk Takers after terminating their employment.

**13. Remuneration policy in respect of persons having significant influence on the risk profile of the Bank - update of the information after the approval of the variable part of remuneration, regarding 2018 year, by the competent authorities of mBank Hipoteczny S.A.**

Collective qualitative information about the remuneration of persons in managerial positions at mBank Hipoteczny S.A.

Number of persons		Management Board Members	Other Risk Takers
		4	11
Fixed remuneration paid in 2018		2 331	2 744
Variable remuneration for 2018		1 180	923
Non-deferred part	Cash	354	923
	Financial instrument - number of shares	1046.41 shares	-
	Financial instrument - amount of the component <sup>2</sup>	354	-
Deferred part	Cash	236	-
	Financial instrument - number of shares	697.61 shares	-
	Financial instrument - amount of the component <sup>2</sup>	236	-
Variable remuneration awarded in the previous years - paid in 2018 <sup>1</sup>	Cash	519	826
	Financial instrument - number of shares	1710.84 shares	534.9 shares
	Financial instrument - amount of the component <sup>2</sup>	563	176
Variable remuneration awarded in the previous years - deferred <sup>1</sup>	Cash	426	169
	Financial instrument - number of shares	1393.08 shares	598.81 shares
	Financial instrument - amount of the component <sup>2</sup>	426	169
Amount of deferred remuneration awarded in 2018, paid and reduced due to the adjustment made on account of results		-	-
Payments related to commencement and termination of the employment relationship - severance pay	Number of persons	-	-
	Value	-	-
	Highest payment	-	-
Number of persons who received total remuneration in the amount of at least EUR 1 million (remuneration in the range between EUR 1M – 1.5M)		-	-
Deferred variable remuneration paid in 2018 to former Risk Takers			118
Former Risk Takers' variable remuneration deferred to the next years			120

<sup>1</sup> Together with the variable remuneration paid to the Risk Takers after terminating their employment.

<sup>2</sup> As per the value on the award date.