INFORMATION ON CAPITAL ADEQUACY

OF THE CAPITAL GROUP OF

BANK HANDLOWY W WARSZAWIE S.A.

AS AT 31 DECEMBER 2018

INTRODUCTION

This document has been laid down to execute The Disclosure Policy of Bank Handlowy w Warszawie S.A. on capital adequacy[1], to meet the disclosure requirements of Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012, as well as of Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC ("CRD").

The objective of the document is presenting to the third parties, especially customers of the Capital Group of Bank Handlowy w Warszawie S.A. (hereinafter referred to as: Group) and financial market participants, the Group's risk management strategy and processes, information on the capital structure, exposure to risk and capital adequacy, which enable thorough assessment of the Group's financial stability. This document complements information included in:

- the Annual Consolidated Financial Statements of the Capital Group of Bank Handlowy w Warszawie S.A for the financial year ended 31 December 2018,
- the Report on Activities of Bank Handlowy w Warszawie S.A. and the Capital Group of Bank Handlowy w Warszawie S.A. in 2018 and refers to them wherever it is relevant.

Pursuant to the Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012, Bank publishes disclosures on capital adequacy on the basis of consolidated data as of 31 December 2018 the Report on Activities of the Capital Group of Bank Handlowy w Warszawie S.A. for 2018.

When the disclosures required by the Regulation (EU) No 575/2013 of the European Parliament and of the Council are published in the Annual Consolidated Financial Statements of the Capital Group of Bank Handlowy w Warszawie S.A for the financial year ended 31 December 2018, this document refers to the number of explanatory note, which discloses required information.

The values presented in the disclosures are expressed in thousands of zlotys, except for situations in which a different unit of measurement was used, detailed in the data presented.

The terms used in the document shall mean the following:

Regulation No. 575/2013 / CRR - 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 amendments;

Commission Implementing Regulation (EU) No. 1423/2013 of 20 December 2013 laying down implementing technical standards with regard to disclosure of own funds requirements for institutions according to Regulation (EU) No. 575/2013 of the European Parliament and of the Council;

Commission Delegated Regulation (EU) No. 183/2013 of 20 December 2013 supplementing Regulation (EU) No. 575/2013 of the European Parliament and of the Council on prudential requirements for credit institutions and investment firms, with regard to regulatory technical standards for specifying the calculation of specific and general credit risk adjustments;

Regulation on risk management and remuneration policy - Regulation of the Minister of Development and Finance of 6 March 2017 on the risk management system and internal control system, remuneration policy and detailed method of estimating internal capital in banks (D.U. 2017, item 637);

[1] The Disclosure Policy of Bank Handlowy w Warszawie S.A. on capital adequacy laid down by the Management Board and approved by the Supervisory Board are available at the Bank's website www.citihandlowy.pl in the "Investor Relations" section.

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

Commission Implementing Regulation (EU) No. 2016/200 of 15 February 2016 laying down implementing technical standards with regard to disclosure of the leverage ratio for institutions, according to Regulation (EU) No. 575/2013 of the European Parliament and of the Council;

Commission Implementing Regulation (EU) No. 2015/1555 of 28 May 2015 supplementing Regulation (EU) No 575/2013 of the European Parliament and of the Council with regard to regulatory technical standards for the disclosure of information in relation to the compliance of institutions with the requirement for a countercyclical capital buffer in accordance with Article 440;

The law on macro-prudential oversight - The law of 5 August 2015 on macro-prudential oversight of the financial system and crisis management in the financial system (Official Journal from 2015, item 1513);

Commission Delegated Regulation (EU) 2017/2295 of 4 September 2017 supplementing Regulation (EU) No 575/2013 of the European Parliament and of the Council with regard to regulatory technical standards for disclosure of encumbered and unencumbered assets;

Guidelines on disclosure requirements under Part Eight of Regulation (EU) No 575/2013 of 04/08/2017;

Guidelines on uniform disclosures under Article 473a of Regulation (EU) No 575/2013 as regards the transitional period for mitigating the impact of the introduction of IFRS 9 on own funds (EBA/GL/2018/01) - 16/01/2018;

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

I. Risk management objectives and policies

The risk management process is consistent within the Group, including Bank Handlowy in Warsaw S.A. and its Subsidiaries (Dom Maklerski Banku Handlowego S.A., Handlowy Leasing Sp. z o.o.), and excludes special purpose vehicles, companies in the process of liquidation, as well as units not conducting current, statutory activity.

The aim of the risk management strategy of the Bank is to take a balanced risk with shared responsibility, without forsaking individual accountability. Taking a balanced risk means proper identification, measurement and risk aggregation, and the establishment of limits with full understanding of both the macroeconomic environment, the profile of the Group's activity, requirement to meet regulatory standards, as well as strategic and business objectives within available resources, capital and liquidity, maximizing return on capital employed.

The concept of risk management, taking into account the shared responsibility, is organized at three independent levels (three levels of risk reduction, interchangeably "three lines of defense"):

- Level 1 i.e.: Organizational units responsible for business activities resulting in risk taking and for risk management in the Bank's operational activity, as well as risk identification and reporting to second line of defense;
- Level 2 i.e.: risk management in organizational units, independently from the risk management by the first Level, and compliance; organizational unit or employees responsible for establishing standards for the risk management in the scope of risk identification, measurement or estimation, mitigation, control, monitoring and reporting and for overseeing the control mechanisms applied by other organizational units to mitigate the risk – organizational units in Risk Management Sector, Compliance Department, Financial Management Sector, Legal Division; Human Resources Division;
- Level 3 i.e.: Internal Audit that provides an independent assessment of risk management processes and internal control system.

The Management Boards of the Group entities ensure that Group's risk management structure reflects Risk Profile and the functions of risk valuation, monitoring and control are separated from activity associated with risk-taking.

Risk management is implemented based on the strategies, policies and procedures relating to taking, monitoring and limiting the risk, standards for the identification, valuation, acceptance, control, monitoring and reporting of risk to which the Group is or may be exposed at.

Risk management strategies, policies and procedures are regularly reviewed to ensure compliance with applicable laws, regulations, supervisory institutions and regulatory recommendations, internal regulations, business and market practices and the adequacy of the scale, nature and complexity of the Group's operations.

Strategies and processes of risk management, as well as the structure and organization of units managing the appropriate risks and solutions used by the Group on measurement and reporting of those risks, are presented in details in the note 49„Risk management" to the Annual Consolidated Financial Statements of the Capital Group of Bank Handlowy w Warszawie S.A. for the financial year ended 31 December 2018.

Ensuring the adequacy of risk management arrangements of the Group and confirmation, that the risk management systems used are appropriate from the institution profile and strategy point of view, takes place within the annual capital planning process.

As per the current „Principles of prudent and stable risk management in the Capital Group of Bank Handlowy w Warszawie S.A." Risk and Capital Management Committee performs not less frequently than once a year, within the process of internal capital assessment and maintenance, an adequacy assessment of the solutions to the actual size and complexity of the Group, including its profile and strategy. The conclusions of such review are submitted to the Management Board for approval.

The Management Board has confirmed that the process of internal capital assessment and maintenance and risk management systems in the Group are appropriate to the nature, scale and complexity of its activities.

As part of the Group's annual capital planning process, a general risk profile of the Group (Risk Register) is determined, taking into account the business model, business strategy assumptions, the current and expected macroeconomic and business environment.

The Group's risk profile includes a list of risk types identified on the basis of inherent risk types, together with a description of implemented control mechanisms, enabling their assessment on a residual basis.
The process of the Group risk profile determination includes in particular:

- identification of risks in the Group's operations, based on the experience, expertise, analysis of the macroeconomic environment, regulatory and competitive position of the Group, taking into account the profile and internal procedures;
- for identified risks: determination of the risk owner, processes and controls mitigating these risks and defining of quantitative measures for these types of risks for which it is possible;
- determination of significant risks for the Group for the year by the Management Board.

The Group manages all types of risk that are identified in its activities, while some of them considering as significant.
For measurable risks, considered as significant, the Group estimates and allocates capital. The Group may decide to create capital buffers for significant, difficult to measure risks.

Within the risk profile assessment in 2018 the following risks were identified as significant:

- Credit risk - risk of potential losses arising from a client event of default or insolvency taking into account risk mitigation techniques applied to a product or individual credit;
- Counterparty Risk - the risk of potential losses arising from changes in market prices that occur, when the client is unable to meet its contractual obligations. This risk is part of credit risk generated on such activities as derivative transactions;
- Market Risk - risk of loss resulting from potential fluctuations in the market value of the exposure as a result of the changes in underlying market risk factors. The key factors are: interest rates, FX rates, securities' prices, commodities' prices and their volatilities;
- Interest rate risk in banking book - risk of potential negative impact of the changes in market risk factors on the Group's interest income;
- Liquidity Risk - risk of a Group inability to meet its obligations in due time and without incurring financial losses, which occurs due to cash flow mismatches (cash flow gap), limited asset marketability or systematic market changes;
- Operational Risk - is the risk of loss resulting from inadequate or failed internal processes, people, or technical systems, or from external events. It includes reputation and franchise risks associated with operational risk events and business practices or market conduct. It also includes legal risk and compliance risk (defined below). Operational Risk does not cover strategic risks or the risk of loss resulting solely from authorized judgments made with respect to taking credit, market, liquidity or insurance risk;
- Compliance risk - a risk of negative effects of a failure to observe the law, supervisory regulations, internal normative acts and market standards, notably:
  a) imposition of legal or regulatory sanctions, including the imposition of financial penalties by competent authorities and regulators or of recommendations requiring the Bank to comply with them, which in turn may involve financial outlays and resources dedicated to those actions;
  b) financial or reputational losses (loss of credibility in the eyes of trade partners) to which the Bank is exposed as a result of non-compliance with the laws, supervisory regulations, regulatory recommendations, the Bank's internal normative acts and market standards within the Bank's operations;
  c) potential risk of the Bank incurring additional costs arising, for instance, from imposed penalties, sustained losses and cancelled contracts;

- Information Security risk - risk of disruption of Bank's activity or financial losses due to insufficient security, privacy, integrity or availability of its data and information;
- Outsourcing risk - risk of negative impact of external party on continuation, integrity and quality of entity's activity, its property or employees;
- Models risk - potential loss, which Bank may be exposed at, following decision based on data generated by models utilized by the Bank, as a result of errors in models' development, implementation or utilization. Models risk includes risk of reputation loss as a result of errors in bank's financial statement or other officially published documents by Bank due to incorrect output data from a model.

The risks identified within the Group's profile as significant are the basis for the risk appetite setting for the Group and for the individual business lines. As a result, implementing a specific strategy within the Group's business model, decisions are considered not only for the business purposes, defined in Group's Strategy but also the return on capital employed. Appropriate measures of overall risk level and sets of limits were introduced to ensure that the risk is within the tolerance level.

Additionally the Group manages inter alia the following risks:

- Technological risk - risk of disruption of entity's activity or financial loss due to technical solutions' implementation, utilization or development;
- Misappropriation risk - risk connected with willful act to the detriment of entity by its employees or third parties;
- Money Laundering risk - risk of losses due to involvement in money laundering activity conducted by customers, intermediaries or employees;
- External Events risk (Continuity of Business) - risk of inability of activity continuation by an entity or risk of losses occurring due to extraordinary event, such as earthquake, fires, floods, terrorism, lack of access to the headquarters or media;
- Tax and Accounting risk - risk of negative economic effects due to improper accountancy records, reporting, mistaken calculation of tax obligations or their delayed payments;
- Product risk - risk connected with the sale of product (service), which does not meet customers' requirements and needs, is not compliant with the law and regulations, generates additional risks (for an entity and its customers), does not have adequate support of the employees and processes;
- Legal risk - risk of losses occurring due to instability of legal regulations, changes of law and regulations, improper structure of legal relationships, quality of legal documentation, unfavourable conclusions of courts or other bodies in disputed cases, conducted with other entities;
- Staffing Risk - risk connected with recruitment, availability and professional qualification of employees, their fluctuation, ability to adapt to changes in work environment, work culture, absenteeism, tiredness, overtime, lack of utilization of annual leave for a long time, inadequate or not adjusted to the scale and complexity organizational structures, connections of personnel whose responsibilities is crucial from the perspective of the risk occurring in the bank and similar factors, which may lead to operational losses connected with human factor, it also includes the specificity and diversity of conditions related to the management of human resources in different areas of activity;
- Concentration Risk - risk arising from excessive concentration from exposures to clients, groups of connected clients, customers operating in the same economic sector, geographic region, carrying out the same economic activity or trading with similar commodities, entities belonging to Bank capital's group (both cross-border and local), exposures denominated in the same currency or indexed to the same currency, used credit risk mitigation techniques as well as large indirect credit exposures such as a single issuer of the security, with the potential to generate losses large enough to imperil bank's financial condition or financial ability to maintain its core operations or lead to a significant change in the risk Group's profile;

- Conduct Risk - risk that the Group's employees or intermediaries with the help of which the Group sells financial products - intentionally or negligently - will harm the clients, the integrity of financial markets or the integrity of the Group.

Risks identified as significant, including quantitative indicators, current trends, and the utilization of capital limits, are monitored as a part of the regular, quarterly information provided to the Risk and Capital Management Committee of the Bank's Management Board and to the Risk and Capital Committee of the Supervisory Board. In 2018, 7 meetings of the Committee at the Bank's Board of Executives and 4 meetings of the Supervisory Board Committee took place, during which the above elements were analysed.

The Group's goal is to maintain current capital structure in order to address requirements of CRR/CRD on Common Equity Tier 1 regulatory capital. Group, as it is stated in the strategy, will continue to be adequately capitalized with diversified sources of income. Considering approved level of Overall Risk Appetite, the Group will maintain a target regulatory capital adequacy ratio at the level of minimum 14%. In 2018 total TCR amounted to 16,8%.

The Bank's Management Board assures compliance of the Bank's activity with the laws and supervisory regulations, Bank's internal normative acts, as well as available market practices and standards, while taking into consideration the Bank's activity on the basis of the laws of another country and the Bank's ties with other entities that could impair effective management of the Bank. The Bank's Management Board – within the framework of assurance by the internal control system of compliance with laws, supervisory regulations, the Bank's internal normative acts and available market practices and standards – is responsible for:

- effective management of compliance risk at the Bank;
- developing the Compliance Policy, ensuring its observance and presenting the Audit Committee of the Supervisory Board with information on compliance, including reports on management of compliance risk;
- taking appropriate actions to eliminate irregularities, including corrective or disciplinary measures, in the case of identification of any irregularities in application of the Compliance Policy.

As part of assurance by the internal control system of compliance with the laws and supervisory regulations, Bank's internal normative acts, available market practices and ethical standards, the Supervisory Board:

- oversees discharge of the duties related to management of compliance risk by the Bank's Management Board;
- oversees the observance of the Bank's internal normative acts, including in the area of the internal control system;
- approves the Policy;
- approves the Rules and Regulations of Operation of the Compliance Unit;
- assesses, at least once a year, the degree of effectiveness of management of compliance risk by the Bank.

The organizational unit that supports the Bank's Management Board, the Supervisory Board and the Bank's organizational units is the Compliance Unit, whose main objective is to ensure operations of Bank comply with the generally applicable laws and supervisory regulations applicable to the Bank's activity or to the financial services provided by the Bank, the Bank's internal normative acts and with market practices and standards as well as practices and standards developed within Citigroup.

The Compliance Unit shall implement the "Compliance Policy at Bank Handlowy w Warszawie S.A.", containing the basic code of conduct for the Bank's employees and explaining key processes identifying compliance risk and enabling management of compliance risk at all levels of the Bank's organization. The Compliance Policy shall be subject to approval by the Bank's Management Board and Supervisory Board.
The Compliance Unit prepares the annual Bank Compliance Plan . The Plan is the basis for ensuring compliance at the Bank and addresses the Bank's supervision over compliance functions performed in subsidiaries of the Bank. The Bank's Management Board shall express its opinion on and the Bank's Supervisory Board shall approve the Plan.

The Compliance Unit shall draft the "Report on implementation of compliance monitoring and compliance risk management functions at Bank Handlowy w Warszawie S.A." for the preceding year. The Compliance Unit Head shall submit the Report to the Bank's Management Board, to the Audit Committee of the Supervisory Board on the recommendation to the Supervisory Board for the approval and to the Bank's Supervisory Board for approval.

Information on the recruitment policy for the selection of members of the managing body and the actual state of their knowledge, skills and expertise

With respect to the institution's policy and practices relating to the selection of members of the managing body and assessment of the actual state of their knowledge, expertise, experience, reputation, integrity and ethicality of acting, independence of judgment or independence and ability to devote sufficient time to perform duties, in the Bank operates the Policy for the Assessment of Management Board Members and Key Function Holders at Bank Handlowy w Warszawie S.A. Policy for the Assessment of Management Board Members and Key Function Holders at Bank Handlowy w Warszawie S.A and a specific procedure to select the members of managing bodies which are applied taking into account the Guidelines of the European Banking Authority and the European Securities and Markets Authority of March 21, 2018 (EBA/GL/2017/12) to assess the suitability of members of management bodies and key function holders.

Members of the management body offer adequate guarantees of performance (in a prudent and sustainable manner) adequate to the performance of the functions entrusted to them i.e. to administer the business of a supervised institution, which results from:

- knowledge (arising from their education, completed training, professional titles and otherwise acquired in the course of their career),
- experience (acquired when performing certain functions or occupying certain positions),
- the necessary skills to perform their assigned functions,
- unimpeachable reputation,
- ethics and honesty of action,
- independence of judgment or being characterized by the attribute of being independent,
- ability to devote sufficient time to perform duties.

The Nomination and Remuneration Committee of the Supervisory Board and The Supervisory Board identifies and selects qualified and experienced candidates to the Management Board. In the assessment of candidates, above mentioned qualifications and attributes are taken into account, considering:

- the character, magnitude and complexity of the Bank's operations and
- the responsibilities relevant to the role,
- diversity in the composition of the management body.

The Bank's Management Board is composed of five to nine members, including: the President of the Management Board of the Bank, Vice Presidents of the Management Board of the Bank, with the proviso that at least half of the Members of the Management Board should be Polish citizens.
Members of the Management Board of the Bank are appointed by the Supervisory Board on an individual term of three years, upon a motion of the President of the Management Board or motion of the Member of the Supervisory Board .

The Supervisory Board is composed of five to twelve members appointed by the General Meeting. Each Member of the Supervisory Board is appointed for a term of three years. At least half of the Members of the Supervisory Board, including its Chairperson, should be Polish citizens.
Members of the Supervisory Board of the Bank are selected from a list of candidates presented by shareholders represented in a General Meeting.

Number of directorships held by members of the management body understood as members of the Management Board: 6.

Liquidity risk management

Liquidity risk is the risk that the Group may be unable to meet on time its financial obligations towards a client, lender or an investor as a result of the mismatches in cash flows due to the balance and off-balance sheet positions that the Group has at a given date.

The liquidity risk management policy in the Group primarily aims to ensure and maintain the ability to meet both: current and future financial obligations (also in the event of extremely stressed conditions), while minimizing the cost of obtaining liquidity. This is possible due to the proper identification of the liquidity risk, its constant monitoring as well as the establishment of limits with full understanding of: the macroeconomic environment, the Group's business profile, regulatory requirements as well as, strategic and business objectives within available liquidity resources.

The liquidity risk strategy, including the acceptable risk level, assumed balance sheet structure and financing plan is approved by the Bank's Management Board and then accepted by the Bank's Supervisory Board. The management of the Group's balance sheet structure is managed by the Asset and Liability Management Committee (ALCO). The organization of the liquidity risk management process that exists in the Group, is aimed to ensure the separation of functions between entities that conduct transactions (affecting the liquidity risk), monitor and control the risk. The management of intraday, current and short-term liquidity is a task of the Financial Markets and Corporate Banking Sector, while the management of medium and long-term liquidity lies on ALCO responsibilities. Reporting functions are performed by the Risk Strategy and Capital Department, while the monitoring and control of the level of liquidity risk is performed by the Market Risk Department. Activities of companies from the Group of the Bank in the area of liquidity risk management are supervised by the Bank by way of delegating its employees to supervisory bodies (supervisory boards) of such affiliates. Supervision over liquidity of companies from the Group of the Bank is exercised by ALCO.

The source data and models used to generate liquidity reports come from independent management systems or other independent record systems. The reports and stress tests are generated on a daily bases by the Risk Strategy and Capital Department - a unit independent from the Financial Markets and Corporate Banking Sector – and sent to the Group's units responsible for the liquidity risk management and to the Market Risk Department, who is responsible for the substantive content of those reports, including recognition of all elements that affect the liquidity risk. On monthly bases, the Market Risk Department prepares the analysis of the Group's liquidity position and liquidity risk level for the Assets and Liabilities Management Committee and the Risk and Capital Management Committee. Daily reports are sent to those who are directly involved in the intraday, current and short-term liquidity management processes. Monthly and quarterly reports are prepared on the basis of daily data and are submitted to the members of the Bank's Committees that deal with medium- and long-term liquidity risk and structural liquidity risk (the Assets and Liabilities Management Committee and the Risk and Capital Management Committee). Such organization ensures:

- current and forward looking information;
- gives a picture of the liquidity risk for the total balance and off-balance sheet and for the relevant for the Bank currencies (PLN, USD, EUR);
- the diversity of prepared reports allows to assess the level of intraday, current and structural liquidity risk,
- obtaining stress test results with a sufficient frequency (daily for the S2 and monthly for the remaining ones);
- comprehensiveness of the approach in the preparation of the liquidity reports covering both balance and off-balance sheet items.

As a part of the liquidity risk management, the Group pursues the following goals:

- providing Group's entities (at any time) with an access to the liquid funds in order to meet all their financial obligations in a timely manner, also in extreme but probable crisis situations;

- maintaining an adequate level of high-quality liquid assets in the event of a sudden deterioration of the Group's liquidity position;
- defining the scale of the liquidity risk undertaken by the Group by establishing, at an appropriate and safe level, internal measures and limits aimed at limiting excessive concentration in the scope of the adopted balance sheet structure or sources of financing;
- constant monitoring of the Group's liquidity situation with respect to the occurrence of an emergency situation in order to launch the Contingency Funding Plan;
- ensuring compliance of the processes operating at the Bank with the Polish and European regulatory requirements regarding liquidity risk management.

As part of liquidity risk management, the Group also applies a number of control mechanisms ensuring compliance with the liquidity risk management principles. They include in particular:

- separation of the function of measuring, monitoring and controlling risks from operating activities, including separation of functions in areas of potential conflicts of interest and areas of increased risk level;
- reviews of processes, performed by persons performing management functions or managerial functions or delegated by these persons;
- control activities integrated into the operations of the Bank's organizational units and adapted to the profile, scale and specificity of the operations of the Bank's organizational units;
- checking that the exposure limits are met and tracking cases when they are breached;
- monitoring the reports with excesses;
- monitoring of risk indicators;
- self-evaluation process;
- monitoring and testing of contingency funding plans and continuity of business plans.

The main source of funding the Group’s activity, including liquid assets portfolio, is deposit base, where at end of year 2018 deposits constituted 91% of total liabilities. The Group maintains buffer of unencumbered high quality assets at high level, investing in sovereign bonds and liquid bonds issued by highly rated corporations. Every year the Group performs analysis if held bond portfolio is possible to liquid at the market condition, in order to set amount of bonds possible to liquidate within timeframe compliant with local regulatory liquidity measure calculation as well as LCR calculation.

The Group constantly monitors funding concentration. To realize that target, the structure of funds is well diversified in each segment of deposits – retail, small enterprises, corporations and public finance sector. The concentration is monitored in break down for client categories and currencies and it is compared to an early warning triggers approved by ALCO. In addition to that there is an early warning trigger for net funding on wholesale market applied.

The Group is one of the biggest market participants on Polish derivative market, however net flows on that instruments in 30 days are irrelevant for LCR.
Simultaneously the Group’s methodology of evaluating potential outflows of margin deposits from the Group to other entities or potential decrease of margin deposits kept by Bank’s customers bases on maximal outflows within last 24 months and it secures Bank from underestimation of outflows within 30 days.

In accordance with the Regulation No. 575/2013 the Group monitors and maintains an adequate level of Liquidity Coverage Ratio (LCR). As of December 31, 2018 LCR was 168%. The Group recognizes that the depth of the FX swap market allows the assumption that the existing mismatch (the excess of FX liabilities over assets) can be easily eliminated by means of current FX swaps. Additionally, the Group does not identify other significant components of the net outflow coverage ratio than those included in the net coverage coverage disclosure formula.

Detailed data on the volume of regulatory measures for 2018, as well as the applied internal measures in the area of the liquidity risk management, are included in the Annual Consolidated Financial Statements of the Capital Group of Bank Handlowy w Warszawie S.A for the financial year ended 31 December 2018 in explanatory note no. 49 "Risk Management" in the section "Liquidity risk”.

As the result of the assessment of the level of liquidity risk and current and structural liquidity ratios (ILAAP), documented during the review of the Risk Management System (meeting of the Risk and Capital Management Committee on March 14, 2018) and the Assets and Liabilities Management Committee in the process of adopting the annual "Financing and Liquidity Plan" (plan for 2018 reviewed and approved in February and March 2018), the Bank did not recommend any changes to the existing liquidity risk limits, considering that they are appropriate to the profile and scale of the Bank's operations.

Tabela 1. Calculation of the LCR indicator (in MM PLN)

		Total unweighted value				Total weighted value			
Quarter ending on		**2018-03-31**	**2018-06-30**	**2018-09-30**	**2018-12-31**	**2018-03-31**	**2018-06-30**	**2018-09-30**	**2018-12-31**
Number of data points used in the calculation of averages		3	3	3	3	3	3	3	3
HIGH-QUALITY LIQUID ASSETS									
1	Total high-quality liquid assets (HQLA)					18 091	17 637	18 558	17 736
CASH-OUTFLOWS									
2	Retail deposits and deposits from small business customers, of which:	12 229	12 385	12 699	13 326	953	960	988	1 047
3	Stable deposits	7 121	7 327	7 386	7 572	356	366	369	379
4	Less stable deposits	5 108	5 058	5 313	5 754	597	594	619	668
5	Unsecured wholesale funding	20 984	20 984	21 961	23 343	11 215	11 138	11 295	11 548
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks	9 676	9 856	11 063	11 732	2 419	2 464	2 766	2 933
7	Non-operational deposits (all counterparties)	11 309	11 128	10 898	11 611	8 796	8 674	8 530	8 615
8	Unsecured debt	-	-	-	-	-	-	-	-
9	Secured wholesale funding					27	19	6	48
10	Additional requirements	37 388	31 892	32 334	34 014	26 490	20 776	21 740	23 618
11	Outflows related to derivative exposures and other collateral requirements	25 579	19 839	20 812	22 704	25 579	19 839	20 812	22 704
12	Outflows related to loss of funding on debt products	-	-	-	-	-	-	-	-
13	Credit and liquidity facilities	11 809	12 053	11 523	11 310	910	937	928	914
14	Other contractual funding obligations	1 193	1 182	1 098	491	1 098	932	1 049	-
15	Other contingent funding obligations	3 658	3 985	4 010	3 825	366	399	401	383
16	**TOTAL CASH OUTFLOWS**					40 149	34 224	35 480	36 644
CASH-INFLOWS									
17	Secured lending (eg reverse repos)	-	-	-	-	-	-	-	-
18	Inflows from fully performing exposures	24 466	18 694	19 504	21 616	24 466	18 694	19 504	21 616
19	Other cash inflows	96	250	49	491	-	-	-	-
EU-19a	(Difference between total weighted inflows and total weighted outflows arising from transactions in third countries where there are transfer restrictions or which are denominated in non-convertible currencies)					-	-	-	-
EU-19b	(Excess inflows from a related specialised credit institution)					-	-	-	-
20	**TOTAL CASH INFLOWS**	24 561	18 943	19 553	22 107	24 466	18 694	19 504	21 616
EU-20a	**Fully exempt inflows**	0	0	0	0	0	0	0	0
EU-20b	**Inflows Subject to 90% Cap**	0	0	0	0	0	0	0	0
EU-20c	**Inflows Subject to 75% Cap**	0	33	67	1 000	0	33	67	1 000
WARTOŚĆ SKORYGOWANAOGÓŁEM									
21	**LIQUIDITY BUFFER**					18 091	17 637	18 558	17 736
22	**TOTAL NET CASH OUTFLOWS**					14 317	14 239	14 337	11 942
23	**LIQUIDITY COVERAGE RATIO (%)**					126%	124%	129%	149%

II. Information related to the use of prudential norms

Information related to the use of prudential norms concern Capital Group of Bank Handlowy w Warszawie S.A. (“Group”).

Group is composed of Bank Handlowy w Warszawie S.A. (“Bank”) as the parent company, as well as the following subsidiary companies: Dom Maklerski Banku Handlowego S.A., Handlowy Leasing Sp. z o.o., Handlowy Investments S.A., PPH Spomasz Sp. z o.o. w likwidacji, Handlowy-Inwestycje Sp. z o.o.

The following entities are fully consolidated:

- Dom Maklerski Banku Handlowego S.A. („DMBH”),
- Handlowy Leasing Sp. z o.o.,
- Handlowy Investments S.A.,
- PPH Spomasz Sp. z o.o. w likwidacji.

The Group offers brokerage services on the capital market through Dom Maklerski Banku Handlowego S.A., a wholly-owned subsidiary of the Bank.

The Capital Group of Bank Handlowy w Warszawie S.A. provides leasing portfolio services until April 30th, 2013 through Handlowy Leasing Sp. z o.o. After this date, Handlowy Leasing – due to reducing its activity solely to execution of lease agreements signed before April 30th, 2013 - did not sign new contracts, continuing existing contracts service providing maintaining the quality of services and cost-efficiency of its operations. Leasing product remained in the Bank's offer and is offered in a form of so-called "open architecture", i.e. co-operation with the European Leasing Fund S.A. and CorpoFlota Sp. z o.o. In 2017, the active Company's leasing portfolio was sold to the Bank.

Handlowy Investments S.A. seated in Luxembourg, belongs to special purpose investment entities, through which the Bank and the Capital Group conduct capital transactions. The entity is a wholly-owned subsidiary of the Bank and its activities are financed with refundable additional capital contributions net profits earned. Due to intention to reduce the investment activities, Handlowy - Investments S.A. and similar holdings will be gradually sold or liquidated. As at 31 December 2018 Handlowy Investments S.A. had the portfolio composed of the following shares: Pol-Mot Holding S.A.

PPH Spomasz Sp. z o.o. under liquidation, seated in Warsaw, fully owned by the Bank is one of the holdings deemed for sale Detailed information on how the Group’s equity investment portfolio is broken down based on purchase reasons are described in chapter VI point No 8 „Equity investments” of the Report on Activities of Bank Handlowy w Warszawie S.A. and of the Capital Group of Bank Handlowy w Warszawie S.A. in 2018.

There are no proportionally consolidated entities within the Group.

Handlowy Inwestycje Sp. z o.o. is the entity accounted for under the equity. It seated in Warsaw is special purpose investment entity, through which the Bank conducts capital transactions. Handlowy Inwestycje Sp. z o.o. has in its portfolio shares of Handlowy Leasing Sp. z o.o. Activities of the entity is financed by refundable capital contributions as well as retained earnings. Handlowy Inwestycje Sp. z o.o. belongs to the portfolio of strategic entities.

There are no entities that are neither consolidated nor deducted. There are also no subsidiaries not included in the consolidation, for which there is a shortage of capital.

All the transactions within Group, including repayments of intercompany liabilities and transfers of funds, are concluded according to law, including Code of Commercial Law and statutory stipulations.

Within the Group, according to the best knowledge, there are no and it is expected that there will be no significant obstacles of legal or practical nature to fast fund transferring or repayment of liabilities between the parent and the subsidiaries.

The scope of Group’s consolidation, defined in accordance with the prudential regulations (CRR) matches the scope of consolidation applied for financial reporting.

Table 2. EU LI1 – Differences between accounting and regulatory scopes of consolidation and the mapping of financial statement categories with regulatory risk categories

	Carrying values as reported in published financial statements	Carrying values under scope of regulatory consolidation	Carrying values of items				
			Subject to the credit risk framework	Subject to the CCR framework	Subject to the securitisation framework	Subject to the market risk framework	Not subject to capital requirements or subject to deduction from capital
ASSETS							
Cash and balances with the Central Bank	7 272 193	7 272 193	7 272 193				
Amounts due from banks	1 333 977	1 333 977	1 036 161	297 816			
Financial assets held-for-trading	2 237 076	2 237 076	8 465	1 274 212		2 237 076	
Hedging derivatives							
Debt securities available-for-sale	14 241 363	14 241 363	14 241 363				
Equity investments valued at equity method	10 399	10 399	10 399				
Equity investments available-for-sale	48 768	48 768	48 768				
Amounts due from customers	21 949 014	21 949 014	20 368 553	424 907	1 155 554		
Tangible fixed assets	364 261	364 261	364 261				
Intangible assets	1 418 794	1 418 794					1 418 794
Current income tax receivables	1 744	1 744	1 744				
Deferred income tax asset	204 207	204 207	204 207				
Other assets	222 918	222 918	222 918				
Non-current assets held-for-sale							
Total assets	**49 304 714**	**49 304 714**	**43 779 032**	**1 996 935**	**1 155 554**	**2 237 076**	**1 418 794**
LIABILITIES							
Amounts due to banks	1 402 233	1 402 233		115 208			1 287 025
Financial liabilities held-for-trading	1 609 382	1 609 382	105 468	1 152 591		1 609 382	
Hedging derivatives							
Amounts due to customers	38 334 345	38 334 345	0	181 981			38 152 364
Provisions	29 984	29 984					29 984
Current income tax liabilities	66 297	66 297					66 297
Other liabilities	805 723	805 723					805 723
Total liabilities	**42 247 964**	**42 247 964**	**105 468**	**1 449 780**	**0**	**1 609 382**	**40 341 393**
Total equity	**7 056 750**	**7 056 750**					
Total liabilities and equity	**49 304 714**	**49 304 714**					

Table 3. EU LI2 – Main sources of differences between regulatory exposure amounts and carrying values in financial statements

	Total	Items subject to			
		Credit risk framework	CCR framework	Securitisation framework	Market risk framework
Assets carrying value amount under the scope of regulatory consolidation (as per template EU LI1)	**49 304 714**	**43 779 032**	**1 996 935**	**1 155 554**	**2 237 076**
Liabilities carrying value amount under the regulatory scope of consolidation (as per template EU LI1)	42 247 964	105 468	1 449 780		1 609 382
Total net amount under the regulatory scope of consolidation	49 304 714	43 779 032	1 996 935	1 155 554	2 237 076
Off-balance-sheet amounts	16 770 845	3 655 482			
Differences due to derivative financial instruments	2 567 131		728 807		
Differences due to different netting rules	564 111		564 111		
Other differences	-106 650	-97 225	-9 425		
Exposure amounts considered for regulatory purposes	**62 313 938**	**47 337 289**	**3 280 428**	**1 155 554**	**2 237 076**

Information on the consolidation method used for each entity within the scope of accounting and regulatory consolidation ranges is presented in Report on Activities of Bank Handlowy w Warszawie S.A. and the Capital Group of Bank Handlowy w Warszawie S.A. in 2018, in chapter III. " The organizational structure of the Capital Group of Bank Handlowy w Warszawie S.A ".

III. Information regarding own funds

Information about the components of equity are presented in details in supplementary note 35 „Capital and Reserves” to the Annual Consolidated Financial Statements of the Capital Group of Bank Handlowy w Warszawie S.A. for the financial year ended 31 December 2018.

The structure of the Group's own funds (Table 4), reconciliation of the Group's own funds to the equity of the Group (Table 5), information on own funds in the interim period (Table 6) and detailed description of the capital instruments' main characteristics (Table 7) are presented in the below tables:

Table 4. The structure of the Group's own funds

ID	Item	Amount
1	**OWN FUNDS**	**4 970 103**
1.1	**TIER 1 CAPITAL**	**4 970 103**
1.1.1	**COMMON EQUITY TIER 1 CAPITAL**	**4 970 103**
1.1.1.1	**Capital instruments eligible as CET1 Capital**	**3 008 172**
1.1.1.1.1	Paid up capital instruments	522 638
1.1.1.1.3	Share premium	2 485 534
1.1.1.2	**Retained earnings**	**-76 419**
1.1.1.2.1	Previous years retained earnings	-1 636
1.1.1.2.2	Profit or loss eligible	-74 784
1.1.1.2.2.1	Profit or loss attributable to owners of the parent	564 247
1.1.1.2.2.2	(-) Part of interim or year-end profit not eligible	-639 031
1.1.1.3	**Accumulated other comprehensive income**	**80 982**
1.1.1.4	**Other reserves**	**2 864 785**
1.1.1.5	**Funds for general banking risk**	**540 200**
1.1.1.9	**Adjustments to CET1 due to prudential filters**	**-19 235**
1.1.1.9.5	(-) Value adjustments due to the requirements for prudent valuation	-19 235
1.1.1.10	**(-) Goodwill**	**-1 245 976**
1.1.1.10.1	(-) Goodwill accounted for as intangible asset	-1 245 976
1.1.1.11	**(-) Other intangible assets**	**-172 817**
1.1.1.11.1	(-) Other intangible assets gross amount	-172 817
1.1.1.28	**CET1 capital elements or deductions - other**	**- 9 589**
1.1.2	**ADDITIONAL TIER 1 CAPITAL**	**-**
1.2	**TIER 2 CAPITAL**	**-**

Table 5. Reconciliation of the Group's own funds for the Group's equity

Reconciliation of the Group's own funds for the Group's equity	Amount
Share capital	522 638
Supplementary capital	3 003 291
Revaluation reserve	84 372
Other reserves	2 883 839
Retained earnings	562 612
Total Equity	**7 056 752**
Goodwill & other intangible assets	- 1 418 794
Adjustments to Equity Tier I in respect of prudential filters - value adjustments in respect of the requirements for the prudence	- 19 235
Other adjustments in transition Common Equity Tier I	- 9 589
Net profit for the Bank’s shareholders	- 639 031
Total Deductions	**- 2 086 649**
Total Own funds	**4 970 103**

Table 6. Own funds (thousands PLN)

	Own Funds	(A) Amount at disclosure date	(B) Regulation No. 575/2013 Article Reference
COMMON EQUITY TIER 1 CAPITAL: INSTRUMENTS AND RESERVES			
1	Capital instruments and the related share premium accounts	3 008 172	26 (1), 27, 28, 29, EBA list 26 (3)
	of which: Series A	260 000	EBA list 26 (3)
	of which: Series B	112 000	EBA list 26 (3)
	of which: Series C	150 638	EBA list 26 (3)
2	Retained earnings	-76 419	26 (1) (c)
3	Accumulated other comprehensive income (and other reserves)	2 945 767	26 (1)
3a	Funds for general banking risk	540 200	26 (1) (f)
6	**Common Equity Tier 1 (CET1) capital before regulatory adjustments**	**6 417 720**	
7	Additional value adjustments (negative amount)	-28 824	36 (1) (b), 37, 472 (4)
8	Intangible assets (net of related tax liability) (negative amount)	-1 418 793	26 (1), 27, 28, 29, EBA list 26 (3)
28	**Total regulatory adjustment to Common Equity Tier 1 (CET1)**	**-1 447 617**	
29	**Common Equity Tier 1 (CET1) capital**	**4 970 103**	
ADJUSTMENTS ADDITIONAL TIER 1 (AT1) CAPITAL: INSTRUMENTS			
36	Additional Tier 1 (AT1) capital before regulatory adjustments	-	
ADDITIONAL TIER 1 (AT1) CAPITAL: REGULATORY ADJUSTMENTS			
43	Total regulatory adjustments to Additional Tier 1 (AT1) capital	-	
44	Additional Tier 1 (AT1) capital	-	
45	Tier 1 capital (T1= CET1+AT1)	**4 970 103**	

ADJUSTMENTSTIER 2 (T2) CAPITAL: INSTRUMENTS AND PROVISIONS			
51	**Tier 2 (T2) capital before regulatory adjustments**	-	
TIER 2 (T2) CAPITAL: REGULATORY ADJUSTMENTS			
57	**Total regulatory adjustments to Tier 2 (T2) capital**	-	
58	**Tier 2 (T2) capital**	-	
59	**Total capital (TC=T1+T2**	**4 970 103**	
60	**Total risk weighted assets**	**29 518 145**	
CAPITAL RATIOS AND BUFFERS			
61	Common Equity Tier 1 (as a percentage of risk exposure amount)	**16,8%**	92 (2) (a), 465
62	Tier 1 (as a percentage of risk exposure amount)	**16,8%**	92 (2) (b), 465
63	Total capital (as a percentage of risk exposure amount)	**16,8%**	92 (2) (c)
APPLICABLE CAPS ON THE INCLUSION OF PROVISIONS IN TIER 2			
72	Direct and indirect holdings of the capital of financial sector entities where the institution does not have a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	**36 534**	36 (1) (h), 45, 46, 472 (10), 56 (c), 59, 60, 475 (4), 66 (c), 69, 70, 477 (4)
73	Direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	**10 399**	36 (1) (i), 45, 48, 470, 472 (11)
75	Deferred tax assets arising from temporary differences (amount below 10% threshold, net of related tax liability where the conditions in Article 38 (3) are met)	**204 206**	36 (1) (c), 38, 48, 470, 472 (5)

Group did not make deductions from own funds for significant investment in the financial sector entities and assets for deferred income tax.

Table 7. The table below presents capital instruments main characteristics

Series/emission	A	B	B	B	B	B	C
1 Issuer	Bank Handlowy w Warszawie S.A.	Bank Handlowy w Warszawie S.A.	Bank Handlowy w Warszawie S.A.	Bank Handlowy w Warszawie S.A.	Bank Handlowy w Warszawie S.A.	Bank Handlowy w Warszawie S.A.	Bank Handlowy w Warszawie S.A.
2 Unique identifier (e.g. CUSIP, ISIN or Bloomberg identifier for private placement)	ISIN: PLBH00000012	ISIN: PLBH00000012	ISIN: PLBH00000012	ISIN: PLBH00000012	ISIN: PLBH00000012	ISIN: PLBH00000012	ISIN: PLBH00000012
3 Governing law(s) of the instrument	Polish law	Polish law	Polish law	Polish law	Polish law	Polish law	Polish law
Regulatory treatment							
4 Transitional CRR rules	Common equity Tier 1 capital	Common equity Tier 1 capital	Common equity Tier 1 capital	Common equity Tier 1 capital	Common equity Tier 1 capital	Common equity Tier 1 capital	Common equity Tier 1 capital
5 Post-transitional CRR rules	Common equity Tier 1 capital	Common equity Tier 1 capital	Common equity Tier 1 capital	Common equity Tier 1 capital	Common equity Tier 1 capital	Common equity Tier 1 capital	Common equity Tier 1 capital
6 Eligible at solo/(sub-)consolidated / solo & (sub-)consolidated	Solo / Consolidated	Solo / Consolidated	Solo / Consolidated	Solo / Consolidated	Solo / Consolidated	Solo / Consolidated	Solo / Consolidated
7 Instrument type (types to be specified by each jurisdiction)	Ordinary shares	Ordinary shares	Ordinary shares	Ordinary shares	Ordinary shares	Ordinary shares	Ordinary shares
8 Amount recognised in regulatory capital (currency in million, as of most recent reporting date)	PLN 260.000.000	PLN 4.480.000	PLN 6.230.000	PLN 8.960.000	PLN 70.594.000	PLN 21.736.000	PLN 150.638.000
9 Nominal amount of instrument	PLN 4	PLN 4	PLN 4	PLN 4	PLN 4	PLN 4	PLN 4
9a Issue price							
9b Redemption price	-	-	-	-	-	-	-
10 Accounting classification	Equity	Equity	Equity	Equity	Equity	Equity	Equity
11 Original date of issuance	27.03.97	27.10.98	25.06.99	16.11.99	24.05.02	16.06.03	28.02.01
12 Perpetual or dated	Perpetual	Perpetual	Perpetual	Perpetual	Perpetual	Perpetual	Perpetual
13 Original maturity date	Without maturity	Without maturity	Without maturity	Without maturity	Without maturity	Without maturity	Without maturity
14 Issuer call subject to prior supervisory approval	No	No	No	No	No	No	No
15 Optional call date, contingent call dates and redemption amount	-	-	-	-	-	-	-
16 Subsequent call dates, if applicable	-	-	-	-	-	-	-

Coupons / dividends							
17 Fixed or floating dividend/coupon	Floating rate	Floating rate	Floating rate	Floating rate	Floating rate	Floating rate	Floating rate
18 Coupon rate and any related index	-	-	-	-	-	-	-
19 Existence of a dividend stopper	No	No	No	No	No	No	No
20a Fully discretionary, partially discretionary or mandatory (in terms of timing)	Fully discretionary	Fully discretionary	Fully discretionary	Fully discretionary	Fully discretionary	Fully discretionary	Fully discretionary
20b Fully discretionary, partially discretionary or mandatory (in terms of amount)	Fully discretionary	Fully discretionary	Fully discretionary	Fully discretionary	Fully discretionary	Fully discretionary	Fully discretionary
21 Existence of step up or other incentive to redeem	No	No	No	No	No	No	No
22 Noncumulative or cumulative	Noncumulative	Noncumulative	Noncumulative	Noncumulative	Noncumulative	Noncumulative	Noncumulative
23 Convertible or non-convertible	Nonconvertible	Nonconvertible	Nonconvertible	Nonconvertible	Nonconvertible	Nonconvertible	Nonconvertible
24 If convertible, conversion trigger(s)	-	-	-	-	-	-	-
25 If convertible, fully or partially	-	-	-	-	-	-	-
26 If convertible, conversion rate	-	-	-	-	-	-	-
27 If convertible, mandatory or optional conversion	-	-	-	-	-	-	-
28 If convertible, specify instrument type convertible into	-	-	-	-	-	-	-
29 If convertible, specify issuer of instrument it converts into	-	-	-	-	-	-	-
30 Write-down features	No	No	No	No	No	No	No
31 If write-down, write-down trigger(s)	-	-	-	-	-	-	-
32 If write-down, full or partial	-	-	-	-	-	-	-
33 If write-down, permanent or temporary	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
34 If temporary write-down, description of write-up mechanism	-	-	-	-	-	-	-
35 Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	-	-	-	-	-	-	-
36 Non-compliant transitioned features	-	-	-	-	-	-	-
37 If yes, specify non-compliant features	-	-	-	-	-	-	-

IV. Capital Adequacy

Capital requirement in relation to Own Funds of Group is calculated according to the Regulation No. 575/2013.

The Group has decided that for the purpose of capital adequacy assessment, pursuant to Article 1(9) of Regulation (EU) 2017/2395 of the European Parliament and of the Council of 12 December 2017 amending Regulation (EU) No 575/2013, it will not apply a transitional period and recognized a one-off impact on capital related to the implementation of IFRS 9.

The tables below present data on the Group's capital adequacy, the amount of risk-weighted assets and capital requirements with respect to own funds, broken down by risk types.

Table 8. Capital adequacy

Capital adequacy	31.12.2018
Common Equity Tier I	**4 970 103**
Tier I Capital	**4 970 103**
Own Funds	**4 970 103**
The total amount of risk exposure	**29 518 145**
Common Equity Tier 1 capital ratio	**16,8%**
Tier 1 capital ratio	**16,8%**
Total capital ratio	**16,8%**

Table 9. EU OV1 – Overview of RWAs

			RWAs		Minimum capital requirements
			31.12.2018	31.12.2017	31.12.2018
	1	**Credit risk (excluding CCR)**	**22 767 938**	**20 911 562**	**1 821 435**
Article 438 (c) (d)	2	Of which the standardised approach*	22 767 938	20 911 562	1 821 435
Article 438 (c) (d)	3	Of which the foundation IRB (FIRB) approach	-	-	-
Article 438 (c) (d)	4	Of which the advanced IRB (AIRB) approach	-	-	-
Article 438 (d)	5	Of which equity IRB under the simple risk-weighted approach or the IMA	-	-	-
Article 107 Article 438 (c) (d)	**6**	**CCR**	**990 138**	**1 335 653**	**79 211**
Article 438 (c) (d)	7	Of which mark to market	634 313	722 737	50 745
Article 438 (c) (d)	8	Of which original exposure	-	-	-
	9	Of which the standardised approach	-	-	-
	10	Of which internal model method (IMM)	-	-	-
Article 438 (c) (d)	11	Of which risk exposure amount for contributions to the default fund of a CCP	-	-	-
Article 438 (c) (d)	12	Of which CVA	355 825	612 916	28 466
Article 438 (e)	**13**	**Settlement risk**	**-**	**1**	**-**
Article 449 (o) (i)	**14**	**Securitisation exposures in the banking book (after the cap)**	**905 475**	**951 516**	**72 438**
	15	Of which IRB approach	-	-	-
	16	Of which IRB supervisory formula approach (SFA)	-	-	-
	17	Of which internal assessment approach (IAA)	-	-	-
	18	Of which standardised approach	905 475	951 516	72 438
Article 438 (e)	**19**	**Market risk**	**1 192 387**	**1 030 143**	**95 391**
	20	Of which the standardised approach	1 192 387	1 030 143	95 391
	21	Of which IMA	-	-	-
Article 438 (e)	**22**	**Large exposures**	**155 742**	**46 825**	**12 459**
Article 438 (f)	**23**	**Operational risk**	**3 506 465**	**3 606 401**	**280 517**
	24	Of which basic indicator approach	-	-	-
	25	Of which standardised approach	3 506 465	3 606 401	280 517
	26	Of which advanced measurement approach	-	-	-
Article 437 (2), Article 48 and Article 60	27	Amounts below the thresholds for deduction (subject to 250% risk weight)	536 513	466 417	42 921
Article 500	28	Floor adjustment	-	-	-
	29	**Total**	**29 518 145**	**27 882 101**	**2 361 452**

** As at 31 December 2018, the amounts of risk-weighted assets and the minimum capital requirement for credit risk take into account the values of derivatives classified in the banking book, respectively: PLN 7,774 thousand and PLN 623 thousand, respectively.*

V. Information regarding capital requirements

1.1. Credit risk

The accounting definitions of past due and impaired exposures

The impairment (exposure value is higher than the projected cash flows) occurs if there is an objective evidence of impairment as a result of the following defined objective evidence of impairment, i.e.:

- significant financial difficulties of the client,
- breach of contract conditions, e.g. delay in interest or principal payments,
- occurrence of economic or legal reasons related to the borrower's financial difficulties and granting to the borrower a concession to financial conditions that the lender would not otherwise consider,
- high probability of a client's insolvency or obtainment of information on the opening of insolvency proceedings,
- domestic or local economic conditions that may be related to the default of exposures,
- the delay in payment,
- significant deterioration in customer rating,
- request of the Bank to initiate enforcement proceedings against the client,
- reduction of the client credit rating by an accepted by the Bank External Credit,

and other loss events could have impact on the estimated future cash flows from the financial asset that can be reliably estimated.

The exposures of clients that the objective evidence of impairment was identified are treated as impaired exposures.

For the purpose of determining regulatory capital for credit risk, impaired exposures are classified to the class of exposures in default. All exposures assigned to the class of exposures in default are impaired exposures.

A description of the approaches and methods adopted for determining value adjustments and provisions

Detailed information on the management of exposures of impaired are presented in the Annual Financial Statements of the Bank Handlowy w Warszawie SA for the year ended 31 December 2018 in explanatory note no. 49 "Risk Management" in the section "Credit risk".

Write-offs for expected credit losses

The Group makes write-downs for expected credit losses according to internal rules and methodologies for calculation of write-downs prepared for all financial assets. They are made on an aggregate basis for each of the 3 stages:

- Step 1: credit exposures for which credit risk has not materially increased since the initial recognition

  - loss estimated over a horizon of 12 months (this is the part of credit losses expected for the entire exposure period resulting from the default within 12 months from the reporting date),

- Step 2: credit exposures for which there has been a significant increase in credit risk

  - credit losses are estimated for the entire duration of the exposure,

- Step 3: credit exposures for which there is objective evidence of impairment

  - credit losses estimated as for impaired assets.

Assignment of exposures to the Stage is based on the client's management approach (individual vs. group), taking into account a wide range of information obtained through standard risk management processes (including the Early Warning process) concerning both current and future events, including macroeconomic factors (taken into account in the macroeconomic scenarios prepared cyclically by the Chief Economist) and the number of days of arrears.

The Bank applies the general rule that the default of the creditor takes place in the event of one or both of the following events:

a) the debtor's delay in performing all material credit obligations towards the Bank is 90 days or more,

b) it is unlikely that the debtor will fully meet his credit obligations towards the Bank without the need for the institution to take measures such as the realisation of collateral.

Table 10. EU CRB-B – The total amount of exposures according to balance-sheet valuation (after accounting offsets) and without taking into account the effects of credit risk mitigation, and the average amount of the exposures over the period broken down by different types of exposure classes

	Net value of exposures at the end of the period	Average net exposures over the period
Central governments or central banks	20 868 041	16 977 881
Regional governments or local authorities	126 278	425 737
Public sector entities	20 868	31 171
Multilateral development banks	224 077	249 588
International organisations	-	-
Institutions	1 601 640	1 600 174
Corporates	21 915 103	21 256 964
Of which: SMEs	2 309 153	2 208 875
Retail	11 594 723	11 615 347
Of which: SMEs	60 053	54 808
Secured by mortgages on immovable property	2 956 418	2 937 053
Of which: SMEs	742 585	771 804
Exposures in default	220 198	226 969
Items associated with particularly high risk	47 741	47 191
Covered bonds	-	-
Claims on institutions and corporates with a short-term credit assessment	-	-
Collective investments undertakings	-	-
Equity exposures	11 425	11 711
Other exposures	2 588 583	2 493 848
Total standardised approach	**62 175 095**	**57 873 634**

** Arithmetical average calculated on quarterly balances in 2018.*

Table 11. EU CRB-C – Geographical breakdown of exposures

	Net value												
	Poland	United Kingdom	Luxembourg	France	Ireland	India	Norway	Czech Republic	Belgium	Netherlands	Hungry	Other countries	Total
Central governments or central banks	20 867 670	-	-	-	371	-	-	-	-	-	-	-	**20 868 041**
Regional governments or local authorities	126 278	-	-	-	-	-	-	-	-	-	-	-	**126 278**
Public sector entities	20 868	-	-	-	-	-	-	-	-	-	-	-	**20 868**
Multilateral development banks	-	-	224 077	-	-	-	-	-	-	-	-	-	**224 077**
International organisations	-	-	-	-	-	-	-	-	-	-	-	-	-
Institutions	648 663	376 493	444	375 835	93 279	-	17 559	1 313	16	-	28 105	59 933	**1 601 640**
Corporates	20 622 353	98 468	249 754	8 885	183 113	151 088	111 083	54 345	99 950	77 027	47 448	211 589	**21 915 103**
Retail	11 594 723	-	-	-	-	-	-	-	-	-	-	-	**11 594 723**
Secured by mortgages on immovable property	2 910 334	-	-	-	-	-	-	46 084	-	-	-	-	**2 956 418**
Exposures in default	220 198	-	-	-	-	-	-	-	-	-	-	-	**220 198**
Items associated with particularly high risk	19 221	-	-	-	-	-	-	-	-	-	-	28 520	**47 741**
Covered bonds	-	-	-	-	-	-	-	-	-	-	-	-	-
Claims on institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-	-	-	-	-
Collective investments undertakings	-	-	-	-	-	-	-	-	-	-	-	-	-
Equity exposures	11 425	-	-	-	-	-	-	-	-	-	-	-	**11 425**
Other exposures	2 588 352	-	231	-	-	-	-	-	-	-	-	-	**2 588 583**
Total standardised approach	**59 630 085**	**474 961**	**474 506**	**384 720**	**276 763**	**151 088**	**128 642**	**101 742**	**99 966**	**77 027**	**75 553**	**300 042**	**62 175 095**

Table 12. EU CRB-D – Concentration of exposures by industry or counterparty types

	Public administration	Construction	Scientific and technical activities	Real estate activities	Financial and insurance activities	Mining and quarrying	Wholesale and retail trade	Information and communication	Natural persons	Manufacturing	Transport and storage	Electricity and gas supply	Other services	**Total**
Central governments or central banks	14 017 912	-	-	-	6 850 129	-	-	-	-	-	-	-	-	**20 868 041**
Regional governments or local authorities	126 278	-	-	-	-	-	-	-	-	-	-	-	-	**126 278**
Public sector entities	-	-	73	-	-	-	-	-	-	-	7 484	-	13 311	**20 868**
Multilateral development banks	-	-	-	-	224 077	-	-	-	-	-	-	-	-	**224 077**
International organisations	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Institutions	-	-	-	-	1 500 262	-	-	101 378	-	-	-	-	-	**1 601 640**
Corporates	80	489 561	1 481 156	308 373	1 122 919	1 055 660	5 905 233	781 664	4 382	7 361 829	360 524	2 759 547	284 175	**21 915 103**
Retail	-	163	23	-	-	-	7 755	158	11 488 369	6 452	-	-	91 803	**11 594 723**
Secured by mortgages on immovable property	-	29 671	7 601	7 715	19 835	-	420 091	94 094	1 469 028	879 333	9 494	-	19 556	**2 956 418**
Exposures in default	-	4 974	-	-	-	-	22 795	71 186	87 439	30 741	1 521	-	1 542	**220 198**
Items associated with particularly high risk	-	-	-	-	35 508	-	-	11 449	-	784	-	-	-	**47 741**
Covered bonds	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Claims on institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Collective investments undertakings	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equity exposures	-	-	-	-	11 425	-	-	-	-	-	-	-	-	**11 425**
Other exposures	-	-	-	-	-	-	-	-	-	-	-	-	2 588 583	**2 588 583**
Total standardised approach	**14 144 270**	**524 369**	**1 488 853**	**316 088**	**9 764 155**	**1 055 660**	**6 355 874**	**1 059 929**	**13 049 218**	**8 279 139**	**379 023**	**2 759 547**	**2 998 970**	**62 175 095**

Table 13. EU CRB-E – Maturity of exposures for balance sheet receivables

	Net exposure value					
	On demand	< 1 year	>= 1 year <= 5 years	> 5 years	No stated maturity	Total
Central governments or central banks	-	6 971 173	11 499 980	2 396 265	-	20 867 418
Regional governments or local authorities	-	126	26 054	-	-	26 179
Public sector entities	-	3	8 560	3 104	-	11 667
Multilateral development banks	-	2	-	224 074	-	224 077
International organisations	-	-	-	-	-	-
Institutions	-	911 694	232 875	-	-	1 144 569
Corporates	26 171	7 540 092	4 113 485	308 835	-	11 988 584
Retail	174	1 899 446	2 432 826	1 306 083	-	5 638 529
Secured by mortgages on immovable property	781	594 313	312 484	1 758 036	-	2 665 615
Exposures in default	35 628	87 746	61 802	4 688	-	189 864
Items associated with particularly high risk	-	-	-	-	47 741	47 741
Covered bonds	-	-	-	-	-	-
Claims on institutions and corporates with a short-term credit assessment	-	-	-	-	-	-
Collective investments undertakings	-	-	-	-	-	-
Equity exposures	-	-	-	-	11 425	11 425
Other exposures	-	-	-	-	2 588 583	2 588 583
Total standardised approach	**62 754**	**18 004 595**	**18 688 065**	**6 001 085**	**2 647 749**	**45 404 250**

Table 14. EU CR1-A – Credit quality of exposures by exposure class and instrument

	Gross carrying values of		Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges of the period	Net values
	Defaulted exposures	Non-defaulted exposures					
Central governments or central banks	-	20 868 042	-	-	-	1 069	20 868 042
Regional governments or local authorities	-	126 419	141	-	-	-94	126 278
Public sector entities	-	20 885	17	-	-	8	20 868
Multilateral development banks	-	224 077	-	-	-	5	224 077
International organisations	-	-	-	-	-	-	-
Institutions	-	1 605 690	4 051	-	-	-1 075	1 601 639
Corporates	-	21 961 877	652 594	-	-	13 460	22 046 771
Of which: SMEs	-	2 320 113	16 490	-	-	1 199	2 330 936
Retail	-	11 686 923	517 998	-	-	-901	11 683 252
Of which: SMEs	-	62 221	4 237	-	-	-921	61 143
Secured by mortgages on immovable property	-	2 968 922	12 504	-	-	1 168	2 956 418
Of which: SMEs	-	748 089	5 504	-	-	158	742 585
Exposures in default	1 251 815	-	1 031 617	-	57 158	-77 459	220 198
Items associated with particularly high risk	-	51 068	3 326	-	-	-1	47 742
Covered bonds	-	-	-	-	-	-	-
Claims on institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-
Collective investments undertakings	-	-	-	-	-	-	-
Equity exposures	-	11 425	-	-	-	309	11 425
Other exposures	-	2 588 583	-	-	-	-	2 588 583
Total standardised approach	**1 251 815**	**62 113 911**	**1 190 631**	-	**57 158**	**-63 511**	**62 175 095**
Of which: Loans	1 217 229	29 511 522	1 158 650	-	57 158	-74 035	29 570 101
Of which: Debt securities	-	14 241 363	-	-	-	1 069	14 241 363
Of which: Off-balance-sheet exposures	32 412	16 764 914	26 481	-	-	9 455	16 770 845

Table 15. EU CR1-B – Credit quality of exposures by industry or counterparty types

	Gross carrying values of		Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges of the period	Net values
	Defaulted exposures	Non-defaulted exposures					
Public administration	-	14 144 412	141	-	-	975	14 144 271
Construction	111 738	521 058	108 428	-	-	1 367	524 368
Scientific and technical activities	-	1 492 348	3 495	-	-	-350	1 488 853
Real estate activities	21 100	316 509	21 521	-	-	113	316 088
Financial and insurance activities	8 677	9 769 274	13 797	-	-	-785	9 764 154
Mining and quarrying	-	1 056 470	810	-	-	101	1 055 660
Wholesale and retail trade	125 866	6 350 637	120 628	-	51	43	6 355 875
Information and communication	95 894	989 737	25 702	-	-	2 020	1 059 929
Natural persons	511 168	13 054 390	516 340	-	55 834	-71 039	13 049 218
Manufacturing	241 739	8 279 128	241 728	-	-	3 778	8 279 139
Transport and storage	88 076	377 957	87 010	-	-	288	379 023
Electricity and gas supply	-	2 760 684	1 136	-	-	324	2 759 548
Other services	47 557	3 001 307	49 895	-	1 273	-346	2 998 969
Total	**1 251 815**	**62 113 911**	**1 190 631**	**-**	**57 158**	**-63 511**	**62 175 095**

Table 16. EU CR1-C – Credit quality of exposures by geography

	Gross carrying values of		Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges of the period	Net values
	Defaulted exposures	Non-defaulted exposures					
Poland	1 251 815	59 566 371	1 188 102	-	57 158	-63 849	59 630 084
United Kingdom	-	475 189	228	-	-	354	474 961
Luxembourg	-	474 885	380	-	-	-315	474 505
France	-	384 885	166	-	-	-165	384 719
Ireland	-	276 923	159	-	-	-160	276 764
India	-	151 176	88	-	-	63	151 088
Norway	-	128 772	130	-	-	16	128 642
Czech Republic	-	102 425	683	-	-	-396	101 742
Belgium	-	100 016	49	-	-	-41	99 967
Netherlands	-	77 138	111	-	-	372	77 027
Hungary	-	75 847	293	-	-	-	75 554
Other countries	-	300 284	242	-	-	610	300 042
Total	**1 251 815**	**62 113 911**	**1 190 631**	**-**	**57 158**	**-63 511**	**62 175 095**

Table 17. CR1-D – Ageing of past-due exposures

	Gross carrying values					
	≤30 days	**>30 days, ≤60 days**	**>60 days, ≤90 days**	**>90 days, ≤180 days**	**>180 days, ≤1 year**	**>1 year**
Loans	321 508	4 705	95 410	18 260	181 070	817 777
Debt securities	-	-	-	-	-	-
Total exposures	**321 508**	**4 705**	**95 410**	**18 260**	**181 070**	**817 777**

Table 18. CR1-E – Non-performing and forborne exposures

	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 non-performing				On performing exposures		On non-performing exposures			
	Total	Of which performing but past due > 30 days and <= 90 days	Of which performing forborne	Total	Of which defaulted	Of which impaired	Of which forborne	Total	Of which forborne	Total	Of which forborne	On non-performing exposures	Of which forborne exposures
Debt securities	15 965 620	-	-	-	-	-	-	902	-	-	-	-	-
Loans and advances	29 570 262	72 182	-	2 859 787	1 219 402	1 219 402	121 083	1 160 497	-	1 101 645	82 566	333 543	12 548
Off-balance-sheet exposures	16 797 326	-	-	1 537 972	32 412	-	1 129	26 481	-	12 398	576	44 456	-

Table 19. EU CR2-A – Changes in the stock of general and specific credit risk adjustments

	Accumulated specific credit risk adjustment	Accumulated general credit risk adjustment
Opening balance	**587 783**	-
Increases due to amounts set aside for estimated loan losses during the period	-	-
Creation/Realeses in the period though the income statement	75 099	-
Transfers between credit risk adjustments	-	-
Impact of exchange rate differences	-	-
Business combinations, including acquisitions and disposals of subsidiaries	-	-
Other adjustments	3 678	-
Closing balance	**666 560**	-
Recoveries on credit risk adjustments recorded directly to the statement of profit or loss	2 373	-
Specific credit risk adjustments directly recorded to the statement of profit or loss	-	-

Table 20. EU CR2-B – Changes in the stock of defaulted and impaired loans and debt securities*

	Gross carrying value defaulted exposures
Opening balance	**872 888**
Loans and debt securities that have defaulted or impaired since the last reporting period	160 684
Returned to non-defaulted status	-797
Amounts written off	-8 612
Other changes	195 239
Closing balance	**1 219 402**

*According to the guidelines of Transition Resource Group for Impairment of Financial Instruments, the value of receivables in Phase 3 is increased by accrued contractual interest in the total amount of PLN 411,529 thousand. The consequence of such presentation of receivables is an increase in credit provisions by the same amount. This change had no impact on the net value of receivables classified in Phase 3.

Table 21. EU CR3 – CRM techniques – Overview

	Exposures unsecured – Carrying amount	Exposures secured – Carrying amount	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
Total loans	**28 409 765**	**542 015**	**504 968**	**37 046**	**-**
Total debt securities	15 964 717	-	-	-	-
Total exposures	**44 374 482**	**542 015**	**504 968**	**37 046**	**-**
Of which defaulted	188 656	1 208	203	1 005	-

Table 22. EU CR4 – Standardised approach – Credit risk exposure and CRM effects

	Exposures before CCF and CRM		Exposures post CCF and CRM		RWAs and RWA density	
Exposure classes	**On-balance-sheet amount**	**Off-balance-sheet amount**	**On-balance-sheet amount**	**Off-balance-sheet amount**	**RWAs**	**RWA density**
Central governments or central banks	20 867 417	623	20 885 941	236	85 258	0,41%
Regional governments or local authorities	26 179	100 099	26 179	49 986	15 233	20,00%
Public sector entities	11 667	9 201	11 666	4 388	8 026	49,99%
Multilateral development banks	224 077	-	224 077	-	-	0,00%
International organisations	-	-	-	-	-	-
Institutions	1 144 569	457 071	640 255	148 461	192 588	24,42%
Corporates	11 988 584	9 926 520	11 980 647	3 288 295	14 978 183	98,10%
Retail	5 638 529	5 956 194	5 628 497	41 013	4 247 546	74,92%
Secured by mortgages on immovable property	2 665 615	290 803	2 665 615	109 221	1 861 178	67,07%
Exposures in default	189 864	30 334	188 656	13 881	229 639	113,38%
Items associated with particularly high risk	47 741	-	47 741	-	71 612	150,00%
Covered bonds	-	-	-	-	-	-
Claims on institutions and corporates with a short-term credit assessment	-	-	-	-	-	-
Collective investments undertakings	-	-	-	-	-	-
Equity exposures	11 425	-	11 425	-	27 024	236,53%
Other exposures	2 588 583	-	2 588 583	-	1 051 649	40,63%
Total standardised approach	**45 404 250**	**16 770 845**	**44 899 282**	**3 655 481**	**22 767 936**	**46,89%**

1.2. Counterparty credit risk

Counterparty risk is incurred from derivative transactions and capital market transactions. For purposes of risk management the Group defines it as pre-settlement risk and settlement risk.

Pre-settlement exposure is defined by PSE measure (Pre-Settlement Exposure, „PSE"), reflecting future potential exposure of the counterparty. PSE reflects maximum expected exposure of the counterparty during the life of the transaction (or transaction portfolio) at the specified confidence level. The distribution of the market value (Mark-to-market) and PSE amount are dependent on market factors determining the values for particular transaction in the customer portfolio. In case there is no sufficient data, to simulate the value of the transactions' portfolio more simplified method are used, same as for the purpose of capital requirement calculation.

Pre-settlement risk exposure is managed and reduced through the initial or variation margin deposits as well as conducting transactions using clearing houses.
Moreover, the exposure arising from pre-settlement risk is continuously monitored and is also limited at the aggregate level broken down by product group.

Settlement risk arises when the Group exchanges cash payments to counterparty on a value date and is unable to verify that payments have been received in exchange. The exposure in this case equals the nominal transaction value.

A description of the methodology used to assign internal capital and credit limits for counterparty credit exposures

Internal capital related to counterparty risk related is calculated as 8% of the value of total risk weighted exposures in the trading portfolio, in which internal capital for the following exposure classes: institutions, corporates, regional governments and local authorities administrative bodies and non-commercial undertakings, was estimated according to advanced approach based on internal ratings. For exposures different than mentioned above internal capital requirements were estimated according to standardized approach specified in the Regulation No. 575/2013. The Group estimates also the level of exposures resulting from counterparty risk in stress scenario.

Furthermore pre-settlement & settlement risks are managed by the Group by setting appropriate limits (pre-settlement and settlement) as an integral part of credit approval process. Pre-settlement limits for counterparty specify, among others, tenors and product families and depend on the customer creditworthiness, his financial standing as well as on the level of customer's knowledge and experience in derivative transactions, forecasted currency position/ other position which requires hedging and related product needs and on the level of derivative transactions already concluded with other banks.

The level of settlement limit which may be approved is determined by the customer's risk rating. For a vast majority of transactions the Group adopted 'delivery versus payment' (DVP) principle which mitigate settlement risk through not paying the counterparty until Group confirms receipt of the payment or delivery of an instrument by a client. The internal settlement limits are availed in specific and justified cases.

A description of policies for securing collateral and establishing credit reserves as well as a description of policies with respect to specific wrong-way risk exposures

The Group's policies for securing collateral vary according to the counterparty business segment. Most common form of collateral accepted to mitigate credit risk of counterparty, with whom the derivate transactions ("transactions") are entered, is financial securing in the form of transfer of the rights to cash or security deposit according to Art. 102 of Banking Act (cash deposit). The amount of security depends on the difference of the current Mark to Market value of a transaction and a limit agreed. In principle, margining in the form of cash due to its nature does not expose the Group to the risk of unfavourable changes in collateral value. Generally the transactions are provided under frame agreements, which in case of breach by counterparty allow for an early termination of transaction by the other party and settlement the positive and negative values of transactions covered by given frame agreement in one net amount. The exposure resulting from counterparty risk together with other exposures is included in the periodical credit analysis of a customer.

The Group applies credit value adjustment to the market value of a derivative contract to take into account the credit risk of the counterparty. All Commercial and Corporate Banking Subsector customers are taken into account for derivatives assessment correction calculation
The Group differentiates the valuation of counterparty risk due to the availability of CDS quotations:

a) Credit Risk of Counterparties, for which there is active market of CDS. It is considered that CDS quotations reflect market valuation of credit risk.
b) Credit Risk of Counterparties, for which there isn't active market of CDS. Based on credit rating (external or internal, if external isn't available) and economic sector, in which client is operating, CDS index value, which reflects market valuation of risk, is attributed to the counterparty.

The Group applies standardized method for calculating counterparty credit risk requirement, as well as market-to-market method for calculating exposure amounts, and therefore the negative correlation risk is not taken into account (probability of counterparties' default is positively correlated with general market risk factors). The Group does not estimate α ratio for calculating exposure amounts, because it does not determine specific correlation risk.

The Group does not enter into agreements, which would require providing additional collateral in case of lowering its credit ratings.

Table 23. EU CCR1 – Analysis of CCR exposure by approach

	Notional	Replacement cost/current market value	Potential future credit exposure	EEPE	Multiplier	EAD post CRM	RWAs
Mark to market*		830 207	1 751 117	-	-	2 581 324	636 234
Original exposure	-					-	-
Standardised approach		-			-	-	-
IMM (for derivatives and SFTs)				-	-	-	-
Of which securities financing transactions				-	-	-	-
Of which derivatives and long settlement transactions				-	-	-	-
Of which from contractual cross-product netting				-	-	-	-
Financial collateral simple method (for SFTs)						-	-
Financial collateral comprehensive method (for SFTs)						13 822	5 854
VaR for SFTs						-	-
Total							**642 088**

* *As at 31 December 2018, the amounts presented in this line include values relating to derivatives classified in the banking book, for which the capital requirement for credit risk is determined using the market value measurement method.*

Table 24. EU CCR2 – CVA capital charge

	Exposure value	RWAs
Total portfolios subject to the advanced method	-	-
(i) VaR component (including the 3× multiplier)		-
(ii) SVaR component (including the 3× multiplier)		-
All portfolios subject to the standardised method	995 280	355 827
Based on the original exposure method	-	-
Total subject to the CVA capital charge	995 280	355 827

Table 25. EU CCR8 – Exposures to CCPs

	EAD post CRM	RWAs
Exposures to QCCPs (total)		34 696
Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which	1 647 314	32 946
(i) OTC derivatives	1 647 314	32 946
(ii) Exchange-traded derivatives	-	-
(iii) SFTs	-	-
(iv) Netting sets where cross-product netting has been approved	-	-
Segregated initial margin	-	
Non-segregated initial margin	40 331	0
Prefunded default fund contributions	56 486	1 750
Alternative calculation of own funds requirements for exposures		
Exposures to non-QCCPs (total)		-
Exposures for trades at non-QCCPs (excluding initial margin and default fund contributions); of which	-	-
(i) OTC derivatives	-	-
(ii) Exchange-traded derivatives	-	-
(iii) SFTs	-	-
(iv) Netting sets where cross-product netting has been approved	-	-
Segregated initial margin	-	
Non-segregated initial margin	-	-
Prefunded default fund contributions	-	-
Unfunded default fund contributions	-	-

Table 26. EU CCR5-A – Impact of netting and collateral held on exposure values*

	Gross positive fair value or net carrying amount	Netting benefits	Netted current credit exposure	Collateral held	Net credit exposure
Derivatives	1 282 677	2 553 293	2 581 324	258 866	2 504 440
SFTs	415 482	-	415 482	409 629	5 854
Total	1 698 159	2 553 293	2 996 806	668 494	2 510 294

* *The table takes into account the values of derivatives classified into banking book with the netted exposure value of PLN 14 193 thousand*.

The Group measures exposures of derivative transactions using methods of market valuation in compliance with the Regulation No. 575/2013. According to the method mentioned above, the balance sheet equivalent of off-balance sheet transactions is calculated as the sum of the replacement cost and potential future credit exposure. The cost of a replacement shall be the market value of the transaction - if it is positive, or zero - when the aforementioned market value is negative or equal to zero. Potential future credit exposure is calculated as the product of the nominal amount of off-balance sheet transactions (or its equivalent delta values for options) and product risk weight assigned to the transaction.

The Group does not use credit derivative hedges.

For the purpose of calculating the balance sheet equivalent of derivative transactions within capital requirements calculation the Group recognizes contractual compensation (“close-out netting”) with respect to off-balance sheet derivative transactions provided by the Bank under relevant frame agreement, when fulfils all legal and formal terms as per the Regulation No. 575/2013, which must be met in order to consider the contractual compensation as risk mitigant.

In particular the Group has a process to monitor regulations in terms of compensation in order to ensure proper monitoring of changes in current regulations in regards to requirements set in the above mentioned resolution.

1.3. Information regarding credit risk mitigation techniques

Information regarding the policies for collateral management and main types of accepted collateral are presented in supplementary note 49„Risk Management” to the Annual Consolidated Financial Statements of the Capital Group of Bank Handlowy w Warszawie S.A. for the financial year ended 31 December 2018.

The value of collateral is calculated on the basis of estimates provided by the property valuation experts, valuations provided by industry analysts, borrowers’ accounting records, deposit certificates, information from external databases, etc. The Group defines and applies appropriate loan to value ratios for different collateral types in the process of estimating collateral amounts.

The Group reviews in detail the amount of taken collateral at least annually and by the renewal or change in conditions of the transaction.

Additionally the Group monitors if there are shortages in received collateral. Monitoring is performed by the unit independent of sales units and its frequency depends on collateral type (monthly, quarterly or annually).

In order to diversify risk associated with collateral, the Group accepts various types and forms of collateral:

- In the Consumer the most common type of collateral is residential real estate,
- In the Corporate and Commercial Banking primarily the following types of collateral are accepted:
  - – guarantees and warranties,
  - – financial security,
  - – collateral.

Detailed procedures defining types of collateral acceptable by the Bank, rules on collateral establishment and value determination as well as creation of specialized independent risk unit responsible for collaterals evaluation allowed to develop adequate standards for this process, including e.g.

- Collateral acceptance and appraisal criteria,
- Standardized documentation,
- Rules of collateral monitoring process (including inspections).

Commercial Bank credit procedures describe ratio of the value of the loan to collateral value for each type of security.

The Group periodically monitors if the actual structure of the collateral portfolio in Commercial Bank is compliant with the structure assumed and if the collateral amount is sufficient.
In Corporate Bank expected Loan-to-Value relations are determined each time in credit decision. These relations are also monitored on the on-going basis.

For Retail Banking Sector the basic collateral for mortgage loans is mortgage on Real Estate. Due to time gap between loans disbursement and setting legally effective mortgage the bridge collateral is used.
The valuation of collateral is performed each time based on real estate appraisal requested by the Group. Collateral appraisals are verified by an independent valuation team in accordance with the valuation guidelines of real estate being collateral for real estate loans for retail customers in Retail Banking Sector. The quality of the appraisal team's work is monitored.

In the field of the funded credit protection the Group considers cash collateral and real estates in case of credit risk mitigation of retail exposures in accordance with the principles set in the Regulation No. 575/2013.
Currently only guarantees issued by the Treasury and BGK are recognized by the Group as unfunded credit risk mitigation techniques for capital adequacy calculation.

The Group enters into reverse repo transactions secured entirely by highly liquid debt securities (mainly issued by the Treasury). These transactions are characterized by low market risk level and therefore low market risk concentration due to short maturities.

Table 27. EU CCR5-B – Composition of collateral for exposures to credit risk and counterparty credit risk

Exposure type / Exposure class	Security collateral	Unfunded credit protection-guarantees	Cash collateral	Value of collateral received	Value of posted collateral
Repo-style transactions* and derivatives on trading portfolio					
Exposures to institutions	109 693	84 853	293 429	487 975	23 546
Exposures to corporates	176 759	-	3 760	180 519	103 545
Total	**286 452**	**84 853**	**297 189**	**668 494**	**127 091**

* repo and reverse-repo transactions

The total value of exposures secured by the guarantee is presented in in column: Unfunded credit protection - guarantees.

1.4. Information regarding application of standardised approach to calculate risk-weighted exposure amounts

The Regulation No. 575/2013 on banks' capital adequacy and Bank's internal policies describe the use of the Group's external ratings and identify external credit assessment institutions whose ratings can be used for the application of the standard method. Currently there are Moody's and Standard & Poors as well as Fitch. Ratings from this three mentioned agencies are used in calculation and reporting process of Capital Requirements for Credit Risk and Counterparty Risk according to standardize method. Currently Group does not use ratings issued by Export Credit Agencies.

Exposure classes for which Bank uses external ratings granted by approved external agency:

1) exposures or contingent exposures to central governments and central banks;
2) exposures or contingent exposures to local governments and local authorities;
3) exposures or contingent exposures to public sector entities;
4) exposures or contingent exposures to multilateral development banks;
5) exposures or contingent exposures to institutions;
6) exposures or contingent exposures to corporates;
7) items representing securitisation positions.

Group applies issuer and issue credit assessment according to rules set forth in The Regulation No. 575/2013 on banks' capital adequacy. Consequently for given exposure where a credit assessment exists for a specific issuing programme or facility to which the exposure belongs, this credit assessment is used to determine the risk weight, which is then assigned to that exposure. Otherwise, Group uses a credit assessment that exists for a specific issuing programme or facility to which the exposure does not belong or a general credit assessment that exists for this issuer, provided that it produces a higher risk weight than that which would be applied to exposures without a credit assessment.

Table 28. The exposure values before and after credit risk mitigation associated with each credit quality step as set for the standardised approach as well as items deducted from own funds

Credit quality step	Exposure values before credit risk mitigation in PLN '000	Exposure values after credit risk mitigation in PLN '000
1	277 576	277 576
2	24 365 520	24 159 143
3	3 206 957	3 206 957
4	76 105	76 105
5	2 223	2 223
6	-	-
no rating*	38 384 881	37 589 944
**Of which: Securitisation*	*1 155 554*	*1 155 554*
Total	**66 313 262**	**65 311 948**

Table 29. EU CR5 – Standardised approach – credit risk*

Exposure classes	Risk weight											Total	Of which unrated
	0%	2%	4%	20%	35%	50%	75%	100%	150%	250%	Other matters		
Central governments or central banks	18 754 724	-	2 131 453	-	-	-	-	-	-	-	-	20 886 177	-
Regional governments or local authorities	-	-	-	76 166	-	-	-	-	-	-	-	76 166	26 183
Public sector entities	-	-	-	3		16 051	-	-	-	-	-	16 054	16 054
Multilateral development banks	224 077	-	-	-	-	-	-	-	-	-	-	224 077	-
International organisations	-	-	-	-	-	-	-	-	-	-	-	-	-
Institutions	-	-	-	675 135	-	112 039	-	1 542	-	-	-	788 716	61 535
Corporates	40 331	105 721	-	5 905	-	2 501	-	15 057 998	-	-	56 486	15 268 941	13 033 913
Retail	-	-	-	-	-	-	5 669 510	-	-	-	-	5 669 510	5 669 510
Secured by mortgages on immovable property	-	-	-	-	1 409 537	-	-	1 306 749	58 550	-	-	2 774 836	2 774 836
Exposures in default	-	-	-	-	-	-	-	148 333	54 204	-	-	202 537	202 537
Items associated with particularly high risk	-	-	-	-	-	-	-	-	47 741	-	-	47 741	19 222
Covered bonds	-	-	-	-	-	-	-	-	-	-	-	-	-
Claims on institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-	-	-	-	-
Collective investments undertakings	-	-	-	-	-	-	-	-	-	-	-	-	-
Equity exposures	-	-	-	-	-	-	-	1 026	-	10 399		11 425	11 425
Other exposures	1 840 858	-	-	2 981	-	-	-	540 537	-	204 206	-	2 588 583	2 588 583
Total standardised approach	**20 859 989**	**105 721**	**2 131 453**	**760 190**	**1 409 537**	**130 591**	**5 669 510**	**17 056 185**	**160 495**	**214 606**	**56 486**	**48 554 764**	**24 403 798**

** The table takes into account the values relating to derivatives classified into banking book with the offset value of exposure amounting to PLN 14 193 thousand.*

Table 30. EU CCR3 – Standardised approach – CCR exposures by regulatory portfolio and risk*

Exposure classes	Risk weight							Total	Of which unrated
	0%	2%	20%	50%	75%	100%	150%		
Central governments or central banks	84 853	-	-	-	-	-	-	84 853	-
Regional governments or local authorities	-	-	-	-	-	-	-	-	-
Public sector entities	-	-	-	-	-	-	-	-	-
Multilateral development banks	-	-	-	-	-	-	-	-	-
International organisations	-	-	-	-	-	-	-	-	-
Institutions	-	-	36 682	838 267	-	2 034	-	876 983	39 378
Corporates	-	1 441 696	-	573	-	176 825	-	1 619 094	308 128
Retail	-	-	-	-	23	-	-	23	23
Exposures in default	-	-	-	-	-	-	-	-	-
Other exposures	-	-	-	-	-	-	-	-	-
Total standardised approach	**84 853**	**1 441 696**	**36 682**	**838 840**	**23**	**178 858**	**-**	**2 580 953**	**347 528**

** The table takes into account values relating only to derivatives classified in the trading book and to repo / reverse repo transactions. The values relating to derivatives classified in banking book are included in Table 29.*

The Group complies with the standard way to assign credit ratings shown in the resolution on the rating takes into account the principles set out in The Regulation No. 575/2013.

1.5. Information regarding exposure to securitisation positions

Securitization activities are one of the areas of business, which recently gained in importance. Group decided to invest in securities based on economic calculation, measuring return on investment against the potential risks. Securitization is now a standard and widely used product in global markets. Its importance also increases on the Polish market. The Group intends to be an active participant in this market segment.

At the end of 2018 year the total item constituting securitization exposures amounted PLN 1,2 MM Securities purchased by the Group are not traded on the market. The Group intends to maintain investments until the maturity date. The expected maturity date of the securities is September 2026 and October 2028. The Group classifies securitization's assets as receivables from customers in accordance with IFRS 9 and value them at amortized cost.

The Group has no positions in the resecuritization.

The Group has procedures for defining the processes of approval and monitoring of securitization exposures, which include, in particular:

- Analysis of the originator including the processes of credit and debt collection, qualitative and quantitative analysis, the condition of maintaining a material net economic interest, reputation, data related to the quality of previous securitization,

- Risk analysis of the exposure underlying the securitization position i.e. the quality, concentration, delays in repayment and the level of losses, the level of recovery rates
- The terms and structure of the transaction reducing identified risks and defining the division into tranches, level of support and security, payment streams, events of default and default indicators, - Monitoring including, among others, verification of the quality of the exposures underlying the securitization position, timeliness of payments and service, compliance with the transactions conditions, the financial situation of the institutions participating in the transaction, etc.

Existing Group's commitment in securitized assets is not exposed to market risk due to the accounting treatment applied.

The Group does not use any additional collateral (other than arising from the transaction's structure) and unfunded protection of securitization positions

The main risk of securitisation transactions is credit risk. Other important risks of the transaction are *inter alia* the risk of early repayment and the risk of partial prepayment (limited by discounting).
Given the above risks, the Group's credit procedures ensure conducting quality monitoring of securitization portfolio on a quarterly basis.

For the assessment of the securitized portfolio, the Group applies internal rating methodology that is based largely on Fitch's methodology.

Risk weighted exposure for securitization portfolio is determined in accordance with the Regulation No 575/2013.

If the Bank at any time knows the composition of unrated pool of securitized exposures, it is possible to apply the risk weight calculated in accordance with the following formula, i.e.

RW= average-weighted risk weight (calculated in accordance with the standardized method) x concentration factor

whereby:

• average-weighted risk weight is the risk weight that would be applied by the Group, if it had exposure to the securitized exposures,

• concentration factor = sum of the nominal amounts of all the tranches divided by the sum of the nominal amounts of the tranches junior to or *pari passu* with the tranche in which the position is held including that tranche itself.

Table 31. The total amount of exposure and capital requirement for securitization exposures held

Exposure class	The total amount of exposure in 000'PLN	Capital requirement in 000'PLN
Items representing securitisation positions	1 155 554	72 438

1.6. Market risk

The amount of capital requirements for individual types of market risk are presented below for:

- fx risk,
- general and specific equity risk,
- specific risk for debt securities,
- general interest rate risk.

Table 32. EU MR1: Market risk under standardised approach

	RWAs	Capital requirements
Outright products		
Interest rate risk (general and specific)	1 185 664	94 853
Equity risk (general and specific)	6 723	538
Foreign exchange risk	-	-
Commodity risk	-	-
Options		
Simplified approach	-	-
Delta-plus method	-	-
Scenario approach	-	-
Securitisation (specific risk)	-	-
Total	**1 192 387**	**95 391**

The information regarding the exposure to interest rate risk on positions not included in the trading book are disclosed in explanatory note 49 "Risk Management" to the Annual Consolidated Financial Statements of the Capital Group of Bank Handlowy w Warszawie S.A. for the financial year ended 31 December 2018.

The interest rate risk is measured on a daily basis.

The Group does not use internal model method for calculating capital requirements for trading book exposures.

1.7. Information regarding the exposures in equities not included in the trading book

Bank's equity investments are broken down into strategic portfolio and divestment portfolio. Strategic portfolio includes entities in the financial sector that help in expansion of products offered by the Bank, increase prestige and reinforce Bank's position in the competing financial services Polish market. Strategic portfolio includes infrastructure providers conducting business for financial sector, which are not controlled by the Bank, but provide strategic value for the Bank due to conducted operations. Divestment portfolio contains entities directly and indirectly owned by the Bank that have no Bank's strategic commitment. Some companies held for sale are restructured commitments, which originate from debt-to-equity swap transactions.

Detailed information on how the Group's equity investment portfolio is broken down based on purchase reasons are described in chapter VI point No 8 „Equity investments" of the Report on Activities of Bank Handlowy w Warszawie S.A. and the Capital Group of Bank Handlowy w Warszawie S.A. in 2018.

A description of accounting techniques applied as well as capital commitments valuation methodologies is in explanatory note 2 „Significant accounting policies" to the Annual Consolidated Financial Statements of the Capital Group of Bank Handlowy w Warszawie S.A. for the financial year ended 31 December 2018.

Information on balance sheet value and the fair value of capital expositions not included in the trading book is in explanatory note 39 „Fair value information" to the Annual Consolidated Financial Statements of the Capital Group of Bank Handlowy w Warszawie S.A. for the financial year ended 31 December 2018.

The value of equity exposures, broken down into listed equity exposures and portfolios of securities not admitted to trading in the regulated equity market is provided in explanatory note 21 „Equity investments valued at the equity method" and note 22 „ Equity and other instruments measured at fair value through income statement" to the Annual Consolidated Financial Statements of the Capital Group of Bank Handlowy w Warszawie S.A. for the financial year ended 31 December 2018.

The value of liquidations of equity investments not included in Bank's trading portfolio is provided in explanatory note 21 "Equity investments valued at equity method" to the Annual Consolidated Financial Statements of the Capital Group of Bank Handlowy w Warszawie S.A. for the financial year ended 31 December 2018.

1.8. Operational risk

Operational risk is understood as risk of loss resulting from inadequate or deficient internal processes, human factors, systems and technology or external events (including the following risk categories: technology, outsourcing, fraud, money laundering, continuity of business, tax and accounting risk, product risk, legal, model, human resources, concentration, conduct, reputational associated with business and market practices, as well as operational risks inherent in other risk categories (e.g. credit, counterparty, liquidity, compliance).

Operational risk does not cover strategic risk or the risk of loss resulting solely from authorized judgments made with respect to taking credit, market, liquidity or insurance risk.

Group applies standardised methodology (STA) for calculation of capital requirement for operational risk, defined in Regulation No. 575/2013.
The Group doesn't apply advanced methodologies for calculation of capital requirement for operational risk.

Information regarding operational risk, as specified in the paragraph 17.3 of Recommendation M on the management of operational risk in banks

With regard to losses impacting financial results, for Retail Banking and Leasing all Events are reported and for the other areas of Group losses exceeding equivalent of USD 1 thousand are reported.

Total operational risk gross losses in Group (absolute value, including gains, excluding recoveries) recorded in the year 2018, split by operational risk event types and categories (in accordance with appendix 1 to Recommendation M) are presented in the table 33. Table contains events impacting financial results, including boundary events.

Table 33. Total operational risk gross losses by types of events

Events' types and categories	Amount
External Theft and Fraud	**2 599**
Credit Card Fraud	1 673
Debit/ATM Card Fraud	605
Electronic Banking and Internet Fraud	216
Other External Theft and Fraud	105
Execution, Delivery & Process Management	**1 029**
Transaction Capture, Execution & Maintenance	693
Monitoring and Reporting	249
Third Party Management - External/Internal	87
Employment Practices and Workplace Environment	**436**
Employee Relations	260
Diversity & Discrimination	177
Systems & Technology	**366**
Other Systems & Technology	366
Clients, Products & Business Practices	**160**
Suitability, Disclosure & Fiduciary	76
Business Practices or Market Conduct	76
Product Design	8
Internal Theft and Fraud	**24**
Other Internal Theft and Fraud	22
Account Takeover - Internal and Customer Accounts; Account Takeover - Branch	2
Physical Asset & Infrastructure Events	**7**
Safety and Security over Premises and Facilities	7
Total	**4 622**

Gross value of operational losses accounted in the year 2018 (by booking date) amounted to PLN 4 662 thousand. 25.4% (PLN 1 172M) out of this amount was related to events, which occurred in prior years. Relation of gross losses to Group revenues amounts to 0.22%. The total amount of losses consists of almost 450 registered events (including homogenous events with financial effects not exceeding USD 10 thousand aggregated on a monthly basis). In terms of severity, in the year 2018 Group registered 0 events >USD 100M and 15 events in the bucket >USD 20M and <USD 100M. The remaining events didn't exceed USD 20M.

The significant events affecting the total amount of 2018 losses include:

- PLN 0.4MM – event related to the incorrect functionality of the system (the amount fully recovered),
- PLN 0.2MM – event related to staffing risk,
- PLN 0.1MM – event related to employee relations,
- PLN 2.3MM - cumulated amount of losses resulting from credit and debit cards frauds (including skimming and internet frauds). Bank incessantly works on preventing measures enhancements in that area. At the same time Bank registered in 2018 recoveries in amount of PLN 1.5MM, what constitutes 65% of total gross loss amount in this area.

Operational risk events exceeding set tolerance thresholds are analyzed by independent control units in view of root causes and corrective actions. Corrective actions are monitored by management to avoid repetitive losses. The Group undertakes series of actions aiming at operational risk mitigation. The following actions were undertaken in 2018: verification of adequacy of applied controls, enhancements to control processes in areas of identified weaknesses, enhancements of fraud detection systems, revision of limits mitigating risk exposure, strengthening of independent verifications, enhancements to maker/checker controls, and staff training. Members of the Management Board approval is required for all losses exceeding established threshold, in view of analyses of causes of the losses and adequacy of corrective actions.

Risk appetite set for the year 2018 were not exceeded.

The information regarding the operational risk is disclosed in explanatory note 49 “Risk Management” to the Annual Consolidated Financial Statements of the Capital Group of Bank Handlowy w Warszawie S.A. for the financial year ended 31 December 2018.

VI. Internal Capital Adequacy Assessment

The Group identifies and manages all types of risks in its activity while some of them considering as significant. For all measurable risks that are considered as significant in the Group's activity, the Group estimates and allocates capital. For this purpose the Group implemented process of estimation and allocation of the internal capital covering significant risk in which assessment of capital adequacy is performed (process ICAAP). The Group annually sets Overall Risk Appetite approved by the Management Board and Supervisory Board. Adopted Overall Risk Appetite clearly and consistently communicate the types and levels of risk the Bank is willing to take, within the context of the Bank's articulated business strategies.

The result of the ICAAP is to determine the capital plan which is consistent with approved by the Board and the Supervisory Board financial plan and risk appetite. It specifies the Group's capital needs and goals. Internal Capital is estimated for significant types of risk. The Group allocates internal capital to the particular business units. Risk and Capital Management Committee is responsible for the annual capital planning and ongoing monitoring of capital usage according to established limits.

Overall Risk Appetite is defined as the aggregated level of expected and unexpected losses, that Group is willing to assume to achieve its strategic objectives while maintaining target regulatory capital adequacy ratio Management

Board on the basis of risk appetite decides on the level of aggregated limits on particular business units and sub-limits on measurable risks treated as significant.

Below we present the specific, measurable risks identified as significant in the Group in 2018:

- credit risk,
- counterparty credit risk,
- operational risk,
- market risk in the trading book,
- interest rate risk in the banking book,
- liquidity risk,
- compliance risk,
- model risk,
- outsourcing risk,
- information security risk (including cyberspace risk).

The Group assesses the internal capital for a base case and a downside scenario, which is a basis for the stress tests' analysis.
Scenarios are defined on the basis of the set of assumptions common to all risks analyzed. In addition, the Group analyzes a one in ten year's scenario (1/10), which forms a basis for additional risk / return measure.

The internal capital requirements for credit and counterparty risk were estimated according to advanced approach based on internal ratings for the following exposure classes: exposures to institutions, corporates, regional governments and local authorities and public sector entities. For exposures different than mentioned above internal capital requirements were calculated according to standardized approach specified in the Regulation No. 575/2013.
Capital requirement for operational risk has been calculated using standardized methodology approach specified in the Regulation No. 575/2013. Calculated capital requirement, according with the accepted methodology, is increased by add-on, if stress tests show necessity to increase internal capital for operational risk.
Internal capital for market risk in trading book is based on an integrated measure, which takes into account both the value at risk (VaR), and the size of losses in stress scenarios, estimating unexpected loss on the trading portfolio with the probability of 99.9% in 1Y time horizon. In the case of banking book (accrual) portfolios quantification of internal capital, is based on a combination of potential maximum decrease in net interest income of the bank in the perspective of one year in conjunction with the maximum negative impact of changes in interest rates on the economic value of the bank's capital, determined in stress scenarios with the probability of 99.9% in 1Y time horizon.
In the case of liquidity risk, the amount of internal capital allocation is based on current and projected elements of supervisory measures, taking into account the stress scenarios within the next 12 months.
The Group does not use diversification effect while aggregating estimated internal capital for significant risks.

The Group adopted proper methods for capital allocation to the business units.

The organisational units engaged in the process of assessment of internal capital are required to ensure adequate level of internal control in the capital calculation process for significant risks. Audit Department conducts independent review of the process of capital assessment and maintenance.

The Banks's capital adequacy assessment process in the form of "Capital Group of Bank Handlowy w Warszawie S.A. Capital Management" document is approved by the Management Board.

Risk and Capital Management Committee is responsible for ongoing capital adequacy assessment. The Committee supervises the compliance with Overall Risk Appetite established by the Supervisory Board and monitors capital adequacy taking into account the quantitative ratios and capital limits utilization.

Risk and Capital Committee of the Supervisory Board receives periodically report on assessment and utilizations of internal and regulatory capital.

If determined within the Overall Risk Appetite level of capital adequacy ratio falls below approved threshold or the Group does not have enough capital to cover internal capital allocation for significant risks, the contingency capital plan will be activated.

VII. Capital Buffers

The Group is obliged to maintain conservation capital buffer of 1,875 p.p. of total risk exposure amount in 2018.

On 4 October 2016, Polish Financial Supervision Authority identified the Group as Other Systemically Important Institution (O-SII) and imposed an additional capital buffer – O-SII capital buffer – of 0,25% of total risk exposure amount.

On 2 August 2018 the PSFA send the letter to the Bank stating that there is no rationale for the reversal or change of the PSFA decision of 4 October 2016, determined by the PSFA decision of 19 December 2017 maintaining O-SII buffer at the level of 0,25% of the total risk exposure amount.

The Regulation of the Minister of Development and Finance regarding systemic risk buffer came into force on 1 January 2018. The Regulation determines the level of the systemic risk buffer at the level of 3% of the total risk exposure amount, applied for all exposures of the Group located in Poland. Due to the fact, that not all exposures of the Group are located in Poland, the Group systemic risk buffer was equal to 2,85% at the end of 2018.

The ratio of institution-specific countercyclical capital buffer for credit exposures located in Poland, which was applied at the end of 2018, in accordance with Article 83 of the Act, was equal to 0%. The ratio will remain in force until Minister of Development and Finance changes its level by the regulation.

The Group calculates the institution-specific countercyclical capital buffer in accordance with the provisions of the Act as the weighted average of the countercyclical buffer rates that apply in the countries where the relevant credit exposures of the Group are located.

Table 34. The amount of the institution-specific countercyclical capital buffer

	As of 31.12.2018
Total risk exposure amount (in PLN'000)	**29 518 145**
Institution-specific countercyclical capital buffer rate (%)	0,01568
Institution-specific countercyclical capital buffer requirement (in PLN'000)	4 628

Table 35. Geographical distribution of credit exposures relevant for the calculation of the countercyclical capital buffer (in PLN'000)

Podział według państwa	Ogólne ekspozycje kredytowe		Ekspozycja zaliczana do portfela handlowego		Ekspozycja sekurytyzacyjna		Wymogi w zakresie funduszy własnych				Wagi stosowane przy wymogu w zakresie funduszy własnych (%)	Wskaźnik bufora antycyklicznego (%)
	Wartość ekspozycji według metody standardowej	Wartość ekspozycji według metody IRB	Suma długich i krótkich pozycji portfela handlowego	Wg metody modeli wewnętrznych	Wartość ekspozycji według metody standardowej	Wartość ekspozycji według metody IRB	Z czego: Ogólne ekspozycje kredytowe	Z czego: Ekspozycje zaliczone do portfela handlowego	Z czego: Ekspozycje sekurytyzacyjne	Razem		
Poland	26 132 246	-	5 642	-	1 000 326	-	1 750 517	452	60 020	1 810 989	95,98582	0,00
United Kingdom	1 311 546	-	-	-	-	-	3 533	-	-	3 533	0,18723	1
India	151 088	-	-	-	-	-	12 087	-	-	12 087	0,64063	0,00
Norway	105 751	-	-	-	-	-	8 460	-	-	8 460	0,44840	2,00
Czech Republic	99 719	-	-	-	-	-	7 978	-	-	7 978	0,42282	1
Luxembourg	90 377	-	192	-	-	-	7 216	15	-	7 231	0,38325	0,00
Ireland	80 803	-	-	-	155 228	-	6 464	-	12 418	18 882	1,00080	0,00
Switzerland	43 521	-	-	-	-	-	3 482	-	-	3 482	0,18453	0,00
Hungary	41 583	-	-	-	-	-	3 327	-	-	3 327	0,17632	0,00
United States	37 410	-	-	-	-	-	3 756	-	-	3 756	0,19906	0,00
Belgium	19 990	-	-	-	-	-	1 599	-	-	1 599	0,08476	0,00
Romania	16 480	-	-	-	-	-	1 318	-	-	1 318	0,06988	0,00
Netherlands	15 414	-	-	-	-	-	1 233	-	-	1 233	0,06536	0,00
Germany	13 082	-	-	-	-	-	947	-	-	947	0,05017	0,00
France	8 885	-	-	-	-	-	711	-	-	711	0,03767	0,00
Bulgaria	7 523	-	-	-	-	-	602	-	-	602	0,03190	0,00
Sweden	7 258	-	-	-	-	-	581	-	-	581	0,03077	2,00
Italy	5	-	-	-	-	-	0	-	-	0	0,00002	0,00
United Arab Emirates	5	-	-	-	-	-	0	-	-	0	0,00002	-
Cyprus	2	-	-	-	-	-	0	-	-	0	0,00001	0,00
South Korea	1	-	-	-	-	-	0	-	-	0	0,00000	0,00
Singapore	1	-	-	-	-	-	0	-	-	0	0,00000	0,00
Taiwan	1	-	-	-	-	-	0	-	-	0	0,00001	-
Austria	-	-	131	-	-	-	-	10	-	10	0,00055	0,00
Cyprus	0	-	-	-	-	-	0	-	-	0	0,00000	0,00
British Virgin Islands	0	-	-	-	-	-	0	-	-	0	0,00000	0,00
Panam	0	-	-	-	-	-	0	-	-	0	0,00000	-
Slovakia	0	-	-	-	-	-	0	-	-	0	0,00000	1,25
Ukraine	0	-	-	-	-	-	0	-	-	0	0,00000	-
Total	**28 182 691**	**-**	**5 965**	**-**	**1 155 554**	**-**	**1 813 811**	**477**	**72 438**	**1 886 726**	**100**	

VIII. Information regarding the remuneration policy

At Bank Handlowy w Warszawie S.A. (Bank) and at Dom Maklerski Banku Handlowego S.A. (DMBH) – subsidiary of the Bank – are binding respectively the "Remuneration policy for employees of Bank Handlowy w Warszawie S.A." (dated 22 December 2017) and "Remuneration policy for employees of Dom Maklerski Banku Handlowego S.A." (dated 3 January 2018), hereinafter referred to as the Remuneration Policy. The above Remuneration Policies have replaced the Remuneration policies for the key Persons, including persons that have material impact on the risk profile, existing in the Bank and DMBH.

The Remuneration Policy sets out the principles for remunerating all employees of Bank and DMBH, including in particular Key Persons, persons whose professional activities have a material impact on the risk profile of the Bank, employees involved in selling (respectively) Bank's and DMBH products and services and persons employed in control functions.

This Policy implements requirements of the provisions of law, Rules of Corporate Governance for Supervised Institutions adopted by the Polish Financial Supervision Authority and the Code of Best Practice for WSE Listed Companies 2016, recommendations of the Polish Financial Supervision Authority covering banking sector and takes into account Guidelines of the European Banking Authority on sound remuneration policies under Articles 74(3) and 75(2) of Directive 2013/36/EU and disclosures under Article 450 of Regulation (EU) No 575/2013, Guidelines of the European Banking Authority on remuneration policies and practices related to the sale and provision of retail banking products and services, Guidelines of European Securities and Markets Authority on remuneration policies and practices (MiFID).

Principles for remuneration of employees that have a material impact on the risk profile in the Bank and DMBH are described in details in the "Remuneration policy for persons whose professional activities have a material impact on the risk profile of Bank Handlowy w Warszawie S.A." which was adopted by the Management Board and approved by the Supervisory Board of the Bank on 22 December 2017 and the "Remuneration policy for persons whose professional activities have a material impact on the risk profile of Dom Maklerski w Warszawie S.A." which was adopted by the Management Board and approved by the Supervisory Board of DMBH on 3 January 2018 (hereinafter referred to as "Remuneration Policy for Identified Staff"), both policies with later changes, that have replaced "Variable remuneration components policy for managerial staff at Bank Handlowy w Warszawie S.A." binding from 26 September 2012 and "Variable remuneration components policy for managerial staff at Dom Maklerski Banku Handlowego S.A." binding from 3 March 2012.

In the work on preparation and implementation of both polices mentioned above were involved:

- the members of the Bank's Nomination and Remuneration Committee,
- the Bank's and DMBH Management Board,
- the head of the Banks's Legal Department and DMBH Legal Team,
- the head of the Banks's Human Resources Department,
- the Bank's and DMBH manager of the Compensation & Benefits Department,
- and, as an external Bank's and DMBH consultant, the law firm "Clifford Chance Janicka, Krużewski, Namiotkiewicz i wspólnicy spółka komandytowa".

Variable remuneration for Bank's Management Board Members is granted by the Supervisory Board and for other employees covered by the "Remuneration Policy for Identified Staff" by the Management Board. It should be noted that the Nomination and Remuneration Committee of the Supervisory Board was established in the Bank. It provides recommendations and opinions on the levels and conditions of variable remuneration of employees covered by the Remuneration Policy for Identified Staff and acknowledges information on the current List of employees whose professional activities have a material impact on the Bank's risk profile

Additionally, each time, in case of the change of the Remuneration Policy for Identified Staff , the Nomination and Remuneration Committee gives its opinion on the changes, including the amounts and components of remuneration, taking into account a cautious and stable risk, capital and liquidity management, and paying special attention to long-term interests of the Bank, the interest of the Bank's shareholders and investors.

In 2018 there were five meetings of the Nomination and Remuneration Committee.

As at December 31, 2018 the Nomination and Remuneration Committee was composed of:

1. Andrzej Olechowski – Chairman of the Committee
2. Jenny Grey – Vice Chairman of the Committee
3. Marc Luet – Member of the Committee
4. Stanisław Sołtysiński – Member of the Committee

In DMBH decisions related to Management Board Members' remuneration and grant of variable remuneration are made by the Supervisory Board and for other employees covered by the Remuneration Policy for Identified Staff by the Management Board. Implementation of this policy is subject to at least annual review performed by the function responsible for internal control and risk management. Written report covering the assessment of implementation of Remuneration Policy for Identified Staff is presented to DMBH Supervisory Board.

Each time, in case of the change of the Remuneration Policy for Identified Staff, DMBH Supervisory Board approves the changes, including the amounts and components of remuneration of the Management Board, taking into account a cautious and stable risk, capital and liquidity management, and paying special attention to long-term interests of DMBH, the interest of the DMBH shareholders and investors.

DMBH Supervisory Board adopted resolutions related to the remuneration of Identified Staff on a circulation basis three times in 2018.

In 2018 the Bank and DMBH analyzed the roles and the responsibilities of their employees in relation to the key manageable risks in the Bank and DMBH as well as quantitative and qualitative criteria described in Commission Delegated Regulation (EU) No 604/2014 of 4 March 2014 supplementing Directive 2013/36/EU of the European Parliament and of the Council with regard to regulatory technical standards with respect to qualitative and appropriate quantitative criteria to identify categories of staff whose professional activities have a material impact on an institution's risk profile and on this basis set the list of employees, who have a material impact on the risk profile of the Bank or DMBH accordingly and therefore should be the subject to the provisions of the Remuneration Policy for Identified Staff. Once a year, by 31 December, the current List of Identified Staff is submitted for the information of the Management Board and the Supervisory Board. The list of the employees under the Remuneration Policy for Identified Staff includes:

- President, Vice-Presidents and the Members of the Management Board of the Bank and DMBH,
- the members of the Risk and Capital Management Committee,
- the members of the Asset-Liability Committee,
- the heads of business lines,
- management staff responsible for control functions in the Bank, i.e. the head of internal audit, the head of compliance division and the heads of risk management, human resources and legal departments,
- other supervisors, whose actions significantly impact assets and liabilities of the Group and which directly influence entering into or changing the contracts and their conditions by the Group,
- other employees who met at least one criterion described in Commission Delegated Regulation.

The philosophy of awarding the persons under the Remuneration Policy for Identified Staff, adopted by the Group, implies the compensation differentiation of particular employees based on the financial and non-financial criteria, such as attitude to take risk and assurance of compliance to reflect their current and future contribution and to supplement mechanisms of efficient risk control by limiting the motivation for taking unreasonable risk impacting the Group and its activities and by rewarding the proper balance between risk and rate of return. According to this philosophy, the payment of variable remuneration to staff under the Remuneration Policy for Identified Staff depends on both the short-term and long-term evaluation of the individual performance and the financial results of the Bank or DMBH or specific organizational unit, whereby the persons responsible for control functions are not assessed for the financial results within business areas they control. The assessment of the Bank's results or results of DMBH is based on the data from three financial years, which takes into account the business cycle of the Bank or DMBH and risk of its economic activities. In case of staff employed less for than 3 years when evaluating the Bank's results and results of DMBH the data includes the span of time from the establishing working relationship. The variable remuneration for 2018, granted January 14, 2019, was divided into non-deferred and deferred portions. The deferred portion was divided into short-term part which vests after 6 or 12 month period and long-term one consisting of three or five tranches, to be paid respectively in years 2020 – 2022 or in years 2020 - 2024, subject to conditions provided for in the Remuneration Policy for Identified Staff. Information on adopted solutions binding in 2018 was given in Annual Consolidated Financial Statements of the Capital Group of Bank Handlowy w Warszawie S.A. for the financial year ended 31 December 2018 in the explanatory note 48 "Employee benefits".

Vesting of particular tranches each time requires approval of the Supervisory Board in relation to remuneration of the Management Board Members and the Management Board in the relation to remuneration of other employees.

The amount of deferral depends on the amount of the awarded variable remuneration and is as follows:

- less than PLN 100 thousand – no deferrals,
- between PLN 100 thousand and equivalent EUR 500 thousand (in DMBH up to the equivalent of 1 million euro) – deferral over 3 or 5 years equal to 40% of the variable remuneration with 6 or 12 months retention period for each bonus tranche,
- above the equivalent EUR 500 thousand (in DMBH above the equivalent of 1 million euro) – deferral over 3 or 5 years equal to 60% of the variable remuneration with 6 or 12 months retention period for each bonus tranche.

The variable remuneration for adopted Remuneration Policy's and Remuneration Policy for Identified Staff's purposes is understood as – in case of the members of the Management Board – discretionary bonus granted by the individual decision of the Supervisory Board, and in case of other Identified Staff – the annual bonus.

At least 50% of the variable remuneration should be awarded in the form of non-cash instruments whose value highly depends on the financial results of the Bank or DMBH accordingly. This condition is fulfilled by the phantom shares, which value in case of Bank Handlowy will fluctuate depending on the market value of the Bank's shares and in case of DMBH is linked to the value of the DMBH's shares which is calculated on basis of DMBH book value. The remaining part of the variable remuneration is a cash award, whereby the interests for the period from awarding to payment the given part of remuneration will be accrued to the given tranche of the deferred variable remuneration. After two years from granting the deferred cash award the accrued interest will be credited to the capital of unpaid tranches of this award and will be subject to interest until it becomes payable after the retention period. In DMBH, in compliance with the Regulation of the Minister of Economic Development and Finance of 25 April 2017 on the internal capital, the risk management system, a supervisory examination programme and supervisory review and assessment, as well as the remuneration policy in brokerage house, in case a share of variable remuneration in fixed remuneration is lower than 50%, only deferred cash variable remuneration is applied.

Starting from the day of adoption of the relevant resolution by the General Shareholders Meeting, both at the Bank and DMBH - respectively on June 21, 2016 at the Bank and June 27, 2017 at DMBH – the maximum ratio of variable remuneration to fixed remuneration of the Indetified Staff was approved at 1: 2.

During the deferral period, employees who are rewarded in Bank's phantom shares are entitled to dividend equivalent payments in respect of any dividends that are declared and paid to ordinary holders of BHW stock, in accordance with the Remuneration Policy for Identified Staff. Employees, who have variable remuneration deferred in DMBH phantom shares, are not entitled to dividend equivalent.

Regardless of changes of the deferred variable remuneration's value associated with the fluctuation of the Bank's share price, changes of DMBH book value or accrued interest, the amount of paid deferred portion of bonus may be lowered or completely reduced by the decision of Supervisory Board or accordingly the Management Board in case of:

- standards concerning the guarantee of safe and prudent Bank management in BHW and the competencies and reputation standards in DMBH have not been met the which is verified by determination if:
  - Identified Staff engaged in gross misconduct in connection with his/her employment duties, in particular participated in or was responsible for conduct which resulted in significant losses to the Bank or DMBH; or
  - Identified Staff knowingly engaged in providing materially inaccurate information to the financial statements of the Bank or BDMH; or
  - The Bank or DMBH suffers a material failure of risk management; or
  - The Identified Staff materially violate any risk limits established or revised by senior management and/or risk management.
- In a situation set forth in Art. 142 sec. 1 of the Banking Law in case of Bank's employees and in situation set in w Art. 110zz sec. 1 of the Act on Trading in Financial Instruments dated 29 July 2005 in case of DMBH employees, or
- In case Identified Staff received the Variable Remuneration based on materially inaccurate financial statements, or
- In case the Bank or DMBH has suffered a material downturn in its financial performance; or
- In case of balance sheet loss, threat of insolvency of loss of liquidity by the Bank or DMBH.

The acquisition of the right to each tranche of deferred variable remuneration will depend on the Bank's results or DMBH results accordingly in the calendar year directly preceding the date of awarding of the right to given tranche ("Year Concerning the Results").

If the Bank or DMBH accordingly suffers a loss calculated as a loss before tax for the Year Concerning the Results, then the Long-term Bonus in the Phantom Shares, to which the right may be earned during the calendar year following the end of the Year Concerning the Results, will be reduced (but not below zero) by a percentage defined as (i) the absolute value of the loss before tax suffered by the Bank or DMBH accordingly in the given Year Concerning the Results, divided by (ii) the absolute value of the highest profit before tax made by the Bank or DMBH accordingly in the period covering three calendar years before the proper Year Concerning the Results, Irrespective of the above, if the Bank or DMBH accordingly suffers any loss calculated as the loss before tax for the Year Concerning the Results, the minimum percentage reduction of 20% will be applied.

The amount of profit (or loss) before tax for each adequate Year Concerning the Results will be the total value of profit (loss) before income tax for the current operations of the Bank or DMBH accordingly. The results for the calendar year will be defined on a basis of the local IFRS statements, which will be covering the audited results for the first three quarters (in accordance with the report to WSE and adequate public authorities), and the last quarter of the year will consist of the actual results for the first two months of this quarter and the estimates for the last month. The estimates will be defined by the Financial Department of the Bank or DMBH accordingly and they will be final and binding regardless of the actual final results.

If the absolute value of the loss before tax suffered by the Bank or DMBH accordingly for the Year Concerning the Results equals or exceeds the total value of the highest profit before tax in the Group's calendar year in the Measurement Period, then the Authorized Persons will not earn the rights to the given tranche.

Based on the above information and based on own judgment as well as after review by the Nomination and Remuneration Committee when applicable, the Supervisory Board in relation to the members of the Management Board or the Management Board in relation to other Identified Staff takes final relevant decisions on the acquiring of right to a given tranche of Deferred Variable Remuneration.

Table 36. Remuneration of employees covered by the Variable Remuneration Policy in 2018[1]

				Cash Award			Phantom shares of Bank Handlowy w Warszawie S.A.			
				Non deferred cash award	Deferred cash award		Short-term phantom shares award		Long-term phantom shares award	
Category/Sector	**Number of Employees[2]**	**Total fixed remunaration[3]**	**Total variable remunaration[4]**	**Paid[5]**	**Paid**	**Accrued, unvested**	**Paid**	**Accrued, unvested**	**Paid**	**Accrued, unvested**
Management Board	6	10 004	14 699	2 159	2 335	2 622	1 664	1 915	2 195	1 810
Consumer Bank Segment	7	4 252	2 206	673	169	282	321	267	188	306
Corporate Bank Segment[6]	60	29 692	15 910	4 620	1 946	1 765	2 064	2 251	1 809	1 455
Total Bank	**73**	**43 947**	**32 816**	**7 451**	**4 451**	**4 669**	**4 049**	**4 433**	**4 192**	**3 571**
Brokerage house	9	2 990	534	341	137	93	-	(63)	124	(99)
Total Group	**82**	**46 937**	**33 350**	**7 792**	**4 588**	**4 762**	**4 049**	**4 370**	**4 316**	**3 472**

[1] Within the Group, there were separate Remuneration Policies of Identified Staff which have replaced the Variable Remuneration Policies binding in previous years, both in the Bank and DMBH. The above table presents remuneration under those Policies.

[2] Including employees covered by the Remuneration Policy for Identified Staff as of 31 December 2018, during whole 2018 there were 83 employees covered by Remuneration Policy for Identified Staff in the Bank and 10 employees in the Brokerage House.

[3] Represents fixed remuneration and covers gross amounts of base salary, benefits, insurance, payment in lieu of leave, benefits provided for in employment contracts of foreign employees.

[4] In addition in 2018 the Bank and the Brokerage House paid out deferred cash award with interest and long-term phantom shares award with dividends to the employees who were not covered in 2018 by the Remuneration Policy for Identified Staff. The full cost of the payouts of those awards in 2018 is included in financial statement.

[5] Paid out in 2019.

[6] Covers employees not being Members of the Management Board of the Bank and who are not employed in the Consumer Bank Segment.

The table above does not include the compensation and benefits of individuals who were not covered by the Remuneration Policy for Identified Staff.

Information related to payments in 2018 associated with hiring of employees covered by the Remuneration Policy for Identified Staff.

- No. of employees: 0 employee,
- Payment amount: PLN 0 thousand.

Information related to 2018 severance payments for employees covered by the Remuneration Policy for Identified Staff.

- No. of employees: 1 employee,
- Payment amount: PLN 524,3 thousands,
- Highest such payment to a single person: PLN 524,3 thousands.

Number of individuals being remunerated in 2018 at least EUR 1 million:

- 1 person in the pay band of EUR 1,0m – 1,5m.

Within the scope of the Remuneration Policy for Identified Staff, in the column "Non - deferred cash award" of the table above there is presented the non - deferred part, paid out in 2019. The remaining, deferred part – consisting of deferred cash award and award in the form of the Bank's phantom shares – will be paid tranches in years 2020-2022 or 2020 - 2024 and is given in the values of the cost of 2018 in accordance with the Annual Consolidated Financial Statements of the Capital Group of Bank Handlowy w Warszawie S.A. for the financial year ended 31 December 2018.

There were no reductions of remuneration awarded under the Policy within the correction connected with the results.

IX. Unencumbered assets

For the purposes of these disclosures assets are encumbered, when they are pledged or used as collateral or as enhancement of transaction's credit quality and their transferability is restricted.

As at 31 December 2018 the Group had encumbered assets due to securities sold under agreements to repurchase, negative valuation of derivative transactions and securities and received credit collateral.

Table 37. Encumbered and unencumbered assets

		Carrying amount of encumbered assets	Fair value of encumbered assets	Carrying amount of unencumbered assets	Fair value of unencumbered assets
		010	040	060	090
010	**Assets of the reporting institution***	**628 836**		**49 239 988**	
030	Equity instruments	-		71 994	
040	Debt securities	137 611	137 611	16 758 278	16 758 278
050	of which: covered bonds	-	-	-	-
060	of which: asset-backed securities	-	-	-	-
070	of which: issued by general governments	137 611	137 611	14 797 905	14 797 905
080	of which: issued by financial corporations	-	-	1 392 573	1 392 573
090	of which: issued by non-financial corporations	-	-	567 800	567 800
120	Other assets	491 225		32 409 716	
121	of which: Loans and advances	491 225		27 919 103	

** The presented values take into account the adjustment resulting from different offsetting rules in the amount of PLN 564,111 thousand, referred to Table 3 illustrating the main sources of differences between regulatory exposure amounts and balance sheet values in the financial statements.*

Table 38. Collateral received by the reporting institution

		Fair value of encumbered collateral received or own debt securities issued	Unencumbered Fair value of collateral received or own debt securities issued available for encumbrance
		010	040
130	**Collateral received by the reporting institution**	**26 446**	**1 517 573**
140	Loans on demand	-	175 963
150	Equity instruments	-	-
160	Debt securities	26 446	848 594
170	of which: covered bonds	-	-
180	of which: asset-backed securities	-	-
190	of which: issued by general governments	26 446	848 594
200	of which: issued by financial corporations	-	-
210	of which: issued by non-financial corporations	-	-
220	Loans and advances other than loans on demand	-	14 659
230	Other collateral received		478 357
240	**Own debt securities issued other than own covered bonds or asset-backed securities**	-	-
241	**Own covered bonds and asset-backed securities issued and not yet pledged**		-
250	**TOTAL ASSETS, COLLATERAL RECEIVED AND OWN DEBT SECURITIES ISSUED**	**655 282**	

Table 39. Sources of encumbrance

		Matching liabilities, contingent liabilities or securities lent	Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered
		010	030
010	**Carrying amount of selected financial liabilities**	**382 133**	**543 152**
011	of which: derivatives	235 425	371 233
012	of which: repurchase agreements	115 207	113 972
013	of which: collateralised deposits other than repurchase agreements	31 501	57 947
014	**Other sources of encumbrance**	**90 159**	**112 130**
015	**TOTAL SOURCES OF ENCUMBRANCE**	**472 292**	**655 282**

X. Leverage ratio

Information on the leverage ratio at 31 December 2018: summary reconciliation of accounting assets and leverage ratio exposures, the calculation of the leverage ratio and the split-up of on balance sheet exposures (excluding derivatives, SFTs and exempted exposures) are presented in the following tables:

Table 40. Summary reconciliation of accounting assets and leverage ratio exposures

		Applicable Amounts in 000'PLN
1	Total assets as per published financial statements	49 304 713
2	Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation	-
3	(Adjustment for fiduciary assets recognised on the balance sheet pursuant to the applicable accounting framework but excluded from the leverage ratio exposure measure in accordance with Article 429(13) of Regulation No. 575/2013 "CRR")	-
4	Adjustments for derivative financial instruments	1 074 436
5	Adjustments for securities financing transactions "SFTs"	117 666
6	Adjustment for off-balance sheet items (i.e. conversion to credit equivalent amounts of off-balance sheet exposures)	4 279 009
6a	(Adjustment for intragroup exposures excluded from the leverage ratio exposure measure in accordance with Article 429 (7) of Regulation No. 575/2013)	-
6b	(Adjustment for exposures excluded from the leverage ratio exposure measure in accordance with Article 429 (14) of Regulation No. 575/2013)	-
7	Other adjustments	-19 235
8	**Total leverage ratio exposure**	**54 756 590**

Table 41. Leverage ratio common disclosure

		CRR leverage ratio exposures in 000'PLN
On-balance sheet exposures (excluding derivatives and SFTs)		
1	On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral)	47 500 009
2	(Asset amounts deducted in determining Tier 1 capital)	-1 438 029
3	**Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets) (sum of lines 1 and 2)**	46 061 980
Derivative exposures		
4	Replacement cost associated with all derivatives transactions (i.e. net of eligible cash variation margin)	830 207
5	Add-on amounts for PFE associated with all derivatives transactions (mark-to-market method)	1 928 852
5a	Exposure determined under Original Exposure Method	-
6	Gross-up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the applicable accounting framework	-
7	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	-177 735
8	(Exempted CCP leg of client-cleared trade exposures)	-
9	Adjusted effective Notional amount of written credit derivatives	-
10	(Adjusted effective Notional offsets and add-on deductions for written credit derivatives)	-
11	**Total derivative exposures (sum of lines 4 to 10)**	2 581 324
Securities financing transaction exposures		
12	Gross SFT assets (with No. recognition of netting), after adjusting for sales accounting transactions	415 482
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	-
14	Counterparty credit risk exposure for SFT assets	-
14a	Derogation for SFTs: Counterparty credit risk exposure in accordance with Article 429b (4) and 222 of Regulation No. 575/2013	-
15	Agent transaction exposures	-
15a	(Exempted CCP leg of client-cleared SFT exposure)	-
16	**Total securities financing transaction exposures (sum of lines 12 to 15a)**	415 482
Other off-balance sheet exposures		
17	Off-balance sheet exposures at gross Notional amount	16 770 845
18	(Adjustments for conversion to credit equivalent amounts)	-12 491 835
19	**Other off-balance sheet exposures (sum of lines 17 to 18)**	4 279 009

Exempted exposures in accordance with CRR Article 429 (7) and (14) (on and off balance sheet)		
19a	(Exemption of intragroup exposures (solo basis) in accordance with Article 429(7) of Regulation No. 575/2013 (on and off balance sheet))	-
19b	(Exposures exempted in accordance with Article 429 (14) of Regulation No. 575/2013 (on and off balance sheet))	-
Capital and total exposures		
20	**Tier 1 capital**	4 970 103
21	**Total leverage ratio exposures (sum of lines 3, 11, 16, 19, 19a and 19b)**	53 337 796
Leverage ratio		
22	**Leverage ratio**	9,3%
Choice on transitional arrangements and amount of derecognised fiduciary items		
23	Choice on transitional arrangements for the definition of the capital measure	
24	Amount of derecognised fiduciary items in accordance with Article 429(11) of Regulation No. 575/2013	-

Table 42. Split-up of on balance sheet exposures (excluding derivatives, SFTs and exempted exposures)

		CRR leverage ratio exposures in 000'PLN
1	Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures), of which:	47 514 202
2	Trading book exposures	954 399
3	Banking book exposures, of which:	46 559 804
4	Covered bonds	-
5	Exposures treated as sovereigns	20 885 941
6	Exposures to regional governments, MDB, international organisations and PSE No.T treated as sovereigns	261 923
7	Institutions	1 144 569
8	Secured by mortgages of immovable properties	2 665 615
9	Retail exposures	5 628 497
10	Corporate	11 981 097
11	Exposures in default	188 859
12	Other exposures (e.g. equity, securitisations, and other Non-credit obligation assets)	3 803 303

The Group does not use exemptions specified in Articles 499. 2 and 3 of the CRR when calculating leverage ratio. The Group does not exempt amounts from total exposure on the basis of Article 429.11 of the CRR.
The main factor impacting the leverage ratio was increase in Nostro account balance and one-day placement in Narodowy Bank Polski, as well as increase in credit exposures and decrease in value of available for sale securities.

The level of leverage ratio is monitored periodically. Information about the current ratio is reported to the Asset and Liability Management Committee on a monthly basis and to the Risk and Capital Management Committee of the Bank’s Management Board and to the Risk and Capital Committee of the Supervisory Board on a quarterly basis.

The Group manages the risk of excessive leverage, among others, by establishing the risk appetite levels and tolerance thresholds for leverage ratio. Risk appetite, tolerance thresholds for leverage ratio and the escalation process in case of breach of thresholds set up in process ICAAP are approved by the Management Board in the form of "Capital Group of Bank Handlowy w Warszawie S.A. Capital Management" document.

Signatures of Management Board Members

21.03.2019	Sławomir S. Sikora	President of the Management Board	
....	....	....	....
Date	Name	Position/function	Signature
21.03.2019	Natalia Bożek	Vice-President of the Management Board	
....	....	....	....
Date	Name	Position/function	Signature
21.03.2019	Maciej Kropidłowski	Vice-President of the Management Board	
....	....	....	....
Date	Name	Position/function	Signature
21.03.2019	David Mouillé	Vice-President of the Management Board	
....	....	....	....
Date	Name	Position/function	Signature
21.03.2019	Barbara Sobala	Vice-President of the Management Board	
....	....	....	....
Date	Name	Position/function	Signature
21.03.2019	James Foley	Member of the Management Board	
....	....	....	....
Date	Name	Position/function	Signature
21.03.2019	Katarzyna Majewska	Member of the Management Board	
....	....	....	....
Date	Name	Position/function	Signature