

CAPITAL ADEQUACY
AND OTHER INFORMATION
SUBJECT TO DISCLOSURE OF
THE GROUP OF PKO BANK POLSKI SA
AS AT 31 DECEMBER 2016

This document is a translation of a document originally issued in Polish. The only binding version is the original Polish version.

CAPITAL ADEQUACY AND OTHER INFORMATION SUBJECT TO DISCLOSURE OF THE PKO BANK POLSKI SA GROUP FOR THE YEAR ENDED 31 DECEMBER 2016 (IN PLN MILLION)



Introduction

The Report "Capital Adequacy and Other Information Subject to Disclosure of the Group of Powszechna Kasa Oszczędności Bank Polski SA as at 31 December 2016", hereinafter referred to as "the Report", was prepared in accordance with the provisions of Article 111a clause 1 of the Act of 29 August 1997 – Banking Law¹, hereinafter referred to as the "Banking Law", Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012 (hereinafter referred to as "CRR"), implementing acts under the CRR, the Act of 5 August 2015 on macroprudential supervision over the financial system and crisis management², hereinafter referred to as the "Act on macroprudential supervision", as well as Recommendation M of the Polish Financial Supervision Authority (Komisja Nadzoru Finansowego, hereinafter referred to as "PFSA") on the operational risk management in banks.

Pursuant to Article 13 par. 1 of the CRR, Powszechna Kasa Oszczędności Bank Polski SA ("PKO Bank Polski SA", "the Bank") being a European parent institution, discloses information on its capital adequacy in a separate document annually, as referred to in Part Eight of the CRR.

This Report was prepared in accordance with the principles of information policy of PKO Bank Polski SA regarding capital adequacy³, as adopted by the Bank, which contain detailed information related to disclosures concerning capital adequacy, rules of their verification, approval and publication.

The Report covers year 2016 and present data as of 31 December 2016 and was prepared in accordance with the principles described in the first paragraph as of 31 December 2016. Unless otherwise stated, the Report includes consolidated data 4 of the PKO Bank Polski SA Group (hereinafter referred to as the "Bank Group"). Since the risk profile of the Group is predominantly affected by PKO Bank Polski SA (93.93% 5 of the Group's consolidated balance sheet total and 89.25% 6 of its consolidated profit/loss on banking activities), some of the information contained in the Report refers specifically to individual data of PKO Bank Polski SA.

Unless otherwise stated, the figures presented in the Report have been expressed in PLN million. Any differences in the totals and proportions result from the rounding to PLN million and to one decimal place respectively.

The Report has been prepared taking into account all of the data available as of 31 December 2016.

The Report has been prepared taking into account all obligations arising from the aforementioned regulations, relating to the Bank and the Group. Lack of a reference to a particular article means that it has been deemed inapplicable.

This Report has been subject to internal verification by the Bank's internal audit.

 $^{^{1}}$ Uniform text, Journal of Laws 1977, No. 140/939 with further amendments.

² Uniform text, Journal of Laws 2015, No. 1513 with further amendments.

³ The principles of information policy of PKO Bank Polski SA regarding capital adequacy, as described in the art. 431 of the CRR, are available on the Bank's website (www.pkobp.pl).

Data provided only for entities subject to prudential consolidation.

⁵ The share PKO Bank Polski SA was calculated in relation in the consolidated balance sheet total of companies subject to prudential consolidation before consolidation adjustments and exclusions for the year ended 31 December 2016.

⁶ The share of PKO Bank Polski SA was calculated in relation to the consolidated profit/loss on banking activities of the Group companies subject to prudential consolidation before consolidation adjustments and exclusions for the year ended 31 December 2016.



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1. Information on the bank and the group

Pursuant to the CRR, the prudential consolidation is used for the purposes of capital adequacy, which unlike IAS-compliant consolidation, encompasses only subordinated entities that can be defined as institutions, financial institutions or ancillary services

undertakings only. Non-financial and insurance entities are not subject to prudential consolidation. Table 1.1 presents the differences in the scope of consolidation of Group's entities as of 31st December 2016.

Table 1.1 Scope of consolidation

The Bank Group							
2016							
		Full consolidat	ion			Decrease of	
Name of entity	Business activity	Full consolidation	Equity method	Decrease of own funds of the Group*	Full consolidation	own funds of the Bank**	
PKO Bank Polski SA	banking activities		parent comp	any	parent c	ompany	
Grupa Kapitałowa PKO Leasing SA	leasing and factoring services	х		nd	х	х	
Grupa Kapitałowa KREDOBANK SA	banking activities and financial services	х		nd	х	х	
PKO Towarzystwo Funduszy Inwestycyjnych SA	investment funds management	х		nd	х	х	
PKO BP BANKOWY PTE SA	pension funds management	х		nd	х	Х	
Finansowa Kompania "Prywatne Inwestycje" Sp. z o.o.	financial services	х		nd	х	х	
PKO Finance AB	acquisition of funds for PKO Bank Polski SA through issuance of bonds	х		nd	х	х	
PKO Bank Hipoteczny SA	banking services	х		nd	х	Х	
PKO BP Finat Sp. z o.o.	services, including transfer agent services and outsourcing of IT specialists	х		nd	х	х	
PKO Życie Towarzystwo Ubezpieczeń SA Group	life insurance		х	х	х	х	
PKO Towarzystwo Ubezpieczeń SA	other personal and property insurance		х	х	х	х	
Merkury - closed-end investment fund of non-public assets	placement of funds collected from fund members		х		х		
NEPTUN - closed-end investment fund of non-public assets***	placement of funds collected from fund members		х	х	х	х	
"Inter-Risk Ukraina" Spółka z dodatkową odpowiedzialnością****	real estate development			х	х	х	
Qualia Development Sp. z o.o. Group****	real estate development				х		

^{*} This item presentst capital exposures of the Bank (other than entities subject to prudential consolidation) taken into account during calculation of own funds of the Group. Since the Group's exposure in Tier 1 instruments of financial sector companies did not exceed the thresholds defined in the CRR, own funds of the Group for prudential consolidation as of 31 December 2016 were not reduced by the aforementioned exposures. The Group did not have any exposures deducted from Tier 2 capital. ** This item presentst capital exposures of the Bank that are taken into account for deductions from own and reserve funds of the Bank. Since the Bank's exposure in Tier 1 instruments of financial sector companies did not exceed the thresholds defined in the CRR, own funds of the Bank as of 31 December 2016 were not reduced by the aforementioned exposures. As of 31 December 2016 the Bank's own funds were reduced by the amount of the Bank's exposure to Tier 2 instruments of selected entities. *** An indirect exposure, i.e. capital exposure of the Fund in Bankowe Towarzystwo Kapitałowe SA, is taken into account in deductions from own funds of the Bank and the Group.

Pursuant to the art. 19 item 1 of the CRR, entities, for which the total assets and off-balance sheet exposure is lower than EUR 10 million, are excluded from the prudential consolidation the Group's entities. As of 31st December 2016, the aforementioned exemption applied to "Inter-Risk Ukraina" Sp. z o.o. and Bankowe Towarzystwo Kapitałowe SA (with NEPTUN –fizan as a sole shareholder).

The controlling entity of the Group is PKO Bank Polski SA, whose share in the consolidated balance sheet total amounts to $89.25\%^4$, and $93.46\%^5$ in the consolidated profit/loss on banking activities.

The PKO Leasing SA Group (i.e. PKO Leasing SA together with its subsidiaries: PKO Leasing Sverige AB, PKO Faktoring SA 7 and Raiffeisen-Leasing Polska SA and its subsidiaries) operates mainly in the leasing, factoring and lending areas.

On 31 October 2016 PKO Leasing SA merged with PKO Bankowy Leasing Sp. z o.o. assuming all of its rights and liabilities.

On 1 December 2016 PKO Leasing SA acquired 100% of shares of Raiffeisen-Leasing Polska SA. Leasing and lending activities constitute the core business of the acquired company.

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^{****} Entity recognized as fixed asset available for sale.

⁷ Formerly: PKO BP Faktoring SA



The following companies became the part of the Group, following the acquisition of Raiffeisen-Leasing Polska SA⁸:

- Raiffeisen-Leasing Real Estate Sp. z o.o. property leasing transactions,
- "Raiffeisen Insurance Agency" Sp. z o.o. insurance agency, creating insurance products and programs aimed at financial institutions; additionally, the company offers lending services, currently provided only to Raiffeisen-Leasing Polska SA Capital Group.
- Raiffeisen-Leasing Service Sp. z o.o. storage, preparation and sale
 of assets repossessed by Raiffesen-Leasing Polska SA as well as
 lending activities; "Raiffeisen Insurance Agency" Sp. z o.o. as the
 shareholder.
- 4) ROOF Poland Leasing 2014 DAC headquartered in Ireland a Special Purpose Vehicle created for the purpose of securitization of leasing liabilities of Raiffeisen-Leasing Polska SA Group; the company issues bonds in order to acquire funds necessary for repurchase of liabilities from Raiffeisen-Leasing Polska SA.

All of the aforementioned companies are subject to prudential consolidation.

Companies of PKO Leasing SA Group operate almost exclusively on the territory of the Republic of Poland, Sweden (PKO Leasing Sverige) and Ireland (ROOF Poland Leasing 2014 DAC).

The share of PKO Leasing SA Group in the consolidated balance sheet total is 5.03%, and $2.35\%^5$ in the consolidated profit/loss on banking activities.

KREDOBANK SA pursues banking operations in the territory of Ukraine and is subject to Ukrainian banking supervision. In March 2012 KREDOBANK SA become the sole shareholder of Finansowa Kompania "Idea Kapitał" Sp. z o.o. (which subject of business includes rendering of financial services) and established the capital group. The share of KREDOBANK SA Group in the consolidated balance sheet total is $0.55\%^4,~{\rm and}~1.57\%^5$ in the consolidated profit/loss on banking activities.

Remaining companies forming the Bank's Group (subject to prudential consolidation) operate almost exclusively on the territory of the Republic of Poland, Ukraine (Finansowa Kompania "Prywatne Inwestycje" Sp. z o.o.) and Sweden (PKO Finance AB).

PKO Bank Polski SA operates also in Germany through its branch (PKO Bank Polski SA Niederlassung Deutschland).

PKO Bank Polski SA received an approval for operation through a branch in Czech Republic (PKO BP S.A. Czech Branch) in December 2016. The branch will begin its operation in 2q2017.

Detailed information on all entities of the Group, subject to the Bank's share in the equity capital of individual entities is contained in the consolidated financial statements of the Group for the year ended 31 December 2016, published on 6 March 2017 (page 12).

Within the Bank Group, some limitations exist (described below) in regard to premature settlement of liabilities by subordinated companies as well as to the transfer of funds in the form of dividend payments:

- 1) In view of a difficult political and economic situation in Ukraine, together with related volatilities on the foreign exchange market in 2016, a series of administrative limitations introduced in the previous years have been prolonged, potentially influencing rapid transfer of funds and settlement of liabilities between Ukrainian entities of PKO Bank Polski SA Group and their parent company. Restrictions include a ban on premature repayment of FX liabilities as well as an obligatory exchange of received foreign funds to UAH
- 2) In accordance with the resolution of the Extraordinary General Shareholders' Meeting of KREDOBANK SA commenced 29 January 2009 and continued 23 February 2009, a moratorium was introduced with respect to dividend payments. The moratorium is

- valid until revoked under an appropriate resolution. In 2016 the moratorium on dividend payment remained in force.
- The strategy of PKO Bank Hipoteczny SA for 2015-2017 (approved by the Supervisory Board) does not assume any dividend payments during those years.
- Selected credit agreements signed by the Group companies involve additional covenants concerning restrictions on dividend payment prior to the credit's maturity.

Moreover, in terms of dividend payments, PKO Bank Polski SA and its subordinated companies are bound by law and recommendations of the PFSA.

Supervisory expectations in terms of capital adequacy measures were described in detail in chapters: 6. Capital buffers and 9. Capital adequacy of this Report.

⁸ Pursuant to the IFRS



2. Management system

Pursuant to par. 9 item 2 of the Banking Law, the management system is a set of principles and mechanisms related to the decision-making process taking place in the Bank, as well as to the assessment of conducted banking activities.

The Bank's management system comprises the risk management and internal control systems.

2.1. Risk management

Risk management is one the most substantial internal processes both in PKO Bank Polski SA, including the Bank's foreign branch, and in other entities of the Bank Group. Risk management aims at ensuring profitability of business activity, while ensuring control of the risk level and maintaining it within the risk tolerance and limits applied by the Bank and the Bank Group, within the changing macroeconomic and legal environment. The level of the risk is an important factor in the planning process.

In the Bank Group, the following types of risk have been identified, which are subject to management: credit, interest rate, foreign exchange, commodity, price risk of equity securities, derivative instruments, liquidity (including financing), operational, compliance, conduct, business (including strategic risk), macroeconomic, model, loss of reputation, capital, leverage, concentration ⁹ and insurance risks ¹⁰.

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

- the Bank Group manages all defined types of risk,
- 2) the risk management process corresponds to the volume of activities and to significance, level and complexity of the risk concerned and it is adjusted to new risk factors and sources on an ongoing basic,
- risk management methods (in particular models and their 3) assumptions) and risk measurement systems are adjusted to the volume and complexity of risk and they are verified and validated periodically,
- organisational separation of the risk management process and debt recovery from business functions is maintained,
- 5) risk management is integrated with the planning and controlling systems,
- the risk level is monitored and controlled on an ongoing basis, 6)
- the risk management process supports the pursuit of the Group's 7) strategy while being compliant with the risk management strategy, in particular with regard to the risk tolerance level.

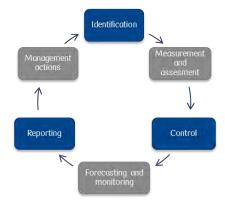
The risk management process in the Group includes:

- risk identification which consists in recognition of both current and potential risk sources and assessment of significance of potential impact of such type of risk on the activities of the Bank and the Group; risk identification includes defining of such types of risk that are considered to be significant in the activity of the Bank, an individual entity of the Group or the entire Group,
- risk measurement and assessment risk measurement includes determining risk measures adequate to the type, significance of risk and data availability, as well as quantitative measurement of

risk by means of defined measures and risk assessment in a form of a determination of volume or scope of risks from the perspective of risk management objectives; the risk measurements include risk assessment for price policy purposes and stress tests performed on the basis of assumptions ensuring reliable risk assessment. The stress test scenarios take into account i.a. PFRA's requirements. Moreover, comprehensive stress tests are also performed at the Bank, forming an integral part of risk management and complementing stress testing of specific risk types Comprehensive stress tests analyse the impact of changes in the environment as well as in the functioning of the Bank on the financial situation of the Bank and the Bank Group,

- risk control defining the tools used in diagnosis and mitigation of risk levels in individual business areas of the Bank and the Bank Group. Risk control includes establishment of control mechanisms, tailored to the scale and complexity of the Bank's activities, in particular in the form of actively monitored tolerance limits for particular risk types and, in case they are exceeded, undertaking management actions,
- risk forecasting and monitoring consists in preparation of risk level forecasts and monitoring differences between execution and forecasts or assumed references (e.g. limits, thresholds, plans, measurements, issued recommendations suggestions issued by the supervisory body), as well as of conducting of specific and comprehensive stress tests. Risk forecasting is subject to verification. Risk monitoring is performed at a frequency appropriate for significance and volatility of a given type of risk,
- risk reporting informing the Bank's Management on a cyclical basis on results of risk measurement or assessment, activities undertaken and recommendations of activities. The reporting scope, frequency and form are adjusted to the management level of addressees. In case of potential liquidity problems of the Bank, the Supervisory Board is notified immediately on the Bank's liquidity level, threats and undertaken remedial actions, as well as in the case of significant operating events or security incidents,
- risk management actions including in particular, issuance of internal regulations developing the management process of individual risk types, defining risk tolerance levels, limits and thresholds, issuing recommendations, including use of risk management tools. Management activities are aimed at designing risk management process and influencing the risk level.

Scheme 2.1 Risk management process



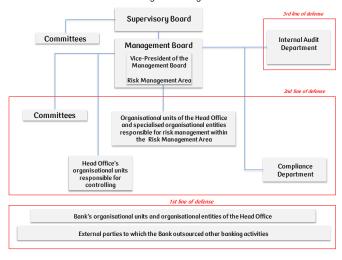
 $^{^{9}\,\}mathrm{The}$ conduct and concentration risks are deemed as significant os of 1st January

<sup>2017.

10</sup> Insurance risk has been identified in PKO Życie Towarzystwo Ubezpieczeń SA and PKO Towarzystwo Ubezpieczeń SA, which are not subject to prudential consolidation, therefore the description of the risk management process related to the insurance risk is not part of this Report. Information in this regard is presented in the consolidated annual report for the Group for the end of 31st December 2016, published on 6th March 2017 (note no. 69 - other risks).



Scheme 2.2 Bank's risk management organisation



The risk management process takes place in all of the operational units of the Bank and operational units of the Head Office.

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

The Supervisory Board is supported among other by the following committees:

- 1) Remuneration Committee (RC)
- 2) Supervisory Board's Risk Committee (SBRC)
- 3) Supervisory Board's Audit Committee (SBAC)

The RC supports the Supervisory Board in its statutory duties and responsibilities arising from the law, regarding remuneration. The RC is described in detail in Chapter 10 of this Report.

The Supervisory Board's Risk Committee supports the Supervisory Board i.a. by formulating opinions on the Bank's willingness to take risks, expressed in particular in the strategic limits of tolerance for risk, supervision over the Management Board in regard to risk management system and assessment of its adequacy and efficacy, as well as in supervision of the strategy of risk management.

In 2016, 8 sessions of KARN and 4 session of KRRN took place.

The Management Board is responsible for the strategic risk management, which includes the supervision and monitoring of the risk management activities taken by the Bank. The Management Board takes major decisions affecting the Bank's risk profile and approves internal regulations which define the risk management system.

The risk management process is executed in three mutually independent lines of defence:

1) first line of defence - risk management within defined selfcontrolling limits pursuant to internal regulations, compliance with binding legal provisions and internal regulations of the Bank as well as implemented market standards; the function is performed by all of the Bank's units, the Head Office units and entities of the Bank Group and includes such aspects of activities of individual units and entities that may generate risk. The Bank's organisational units and the Bank Group's entities are responsible for identification of risks, designing and implementing respective controls, if controls have not been implemented within the scope of activities undertaken in the second line of defence. At the same time the Bank Group's companies are obliged to comply with the principles of coherence and comparability of risk assessment and control in the Bank and Bank Group entities, taking into account the specific nature of the company's business and market at which it operates,

- 2) second line of defence measurement, evaluation, control, monitoring and reporting of risks deemed significant by the Bank, reporting of identified hazards and irregularities, preparing of the Bank's internal rules defining the principles, methods, tools and mode of risk management, as well as measurement of the effectiveness of operations. Risk management system, including the risk management methods, tools, process and organisation; this function is performed in particular by the Risk Management Area, Compliance Department and relevant committees. Second line of defence is complemented by activities aimed at elimination of unfavourable deviations from the financial plan that may affect the strategic tolerance limits laid down in by units of the Head Office responsible for controlling,
- third line of defence internal audit; the function performed within the scope of internal audit, including audit on the efficiency of the risk management system.

The independence of the lines of defence means that they remain organisationally independent as follows:

- the function of the second line of defence is independent from the first line of defence in regard with creation of system solutions,
- 2) the function of the third line of defence is independent from the first and second lines of defence,
- the compliance function is reporting to the President of the Management Board.

The Bank's Head Office units that are responsible for risk management within the scope of their respective competencies in 2016 were grouped in the Bank Risk Division, Model Validation Department, Restructuring and Debt Collection of the Corporate Client Division and the Credit Risk Assessment and Analysis Centre, as well as in the Restructuring and Debt Collection Centre. The unit responsible for the capital risk management was located in the Finance and Accounting Division, whilst the unit responsible for compliance risk, reputation and conduct risk management – in the President of the Management Board's Division.

The purpose of the Banking Risk Division is to create and implement systemic solutions for managing risks that have been defined as significant, such as credit, foreign-denominated retail mortgages, interest rate, foreign exchange, liquidity and financing, operational, business, macroeconomic, derivative intruments and concentration risk as well as capital adequacy, as well as initiation and coordination of activities related to risk management in the Bank Group

The Bank Risk Division, in the context of risk management, is responsible in particular for:

- 1) identification of risk factors and its sources,
- risk measurement, assessment, control and cyclical monitoring and reporting of the risk level,
- 3) coordination of risk management strategy-related activities,
- 4) measurement and assessment of capital adequacy,
- 5) preparing recommendations for the Management Board or committees as to the acceptable risk level,
- developing and reviewing of internal regulations relating to risk and capital adequacy management,
- developing IT systems to support risk and capital adequacy management,
- 8) coordination of implementation of coherent risk management standards in the Bank Group

The Model Validation Department is, in particular, responsible for:

- 1) validation of models used in risk management,
- 2) management of risk of models.

The Department of Restructuring and Debt Collection of the Corporate Client is responsible in particular for:

- 1) recovery (and/or restructuring) of nonperforming receivables,
- 2) collateral foreclosure during recovery process,



 reviewing and classifying of receivables and off-balance sheet liabilities managed by the Department and defining the amount of write-downs for impairment.

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

- preparation of systemic solutions, including internal regulations, applications and models utilized in the processes of nonperforming debt monitoring
- 2) debt collection through restructuring, recovery, as well as improving effectiveness of those activities,
- outsourcing of monitoring and debt collection and management of collateral foreclosed as a result of recovering Bank's receivables, as well as efficient sale of non-performing debts,
- interventions in the context of early monitoring of delays in repayment of debts of individual and institutional clients in the Retail Banking Area.

The Credit Risk Assessment and Analysis Centre is responsible in particular for:

- assessment and mitigation of credit risk of individual credit exposures
- risk assessment of financial institutions and monitoring of limits on wholesale market related to the credit of financial institutions,
- improvement and optimization of IT solutions used in the credit process.

The Compliance Department, in the context of risk management, is responsible in particular for:

- 1) compliance risk management,
- 2) conduct risk management,
- 3) loss of reputation risk management,
- 4) creation of internal control standards.

The Planning and Controlling Department, in the context of risk management, is responsible in particular for:

- 1) capital risk management
- planning and monitoring of the Bank and the Group's financial and sales plans execution.

The Management Board, in the context of risk management, is supported by the following committees:

- 1) Risk Committee ('the RC'),
- 2) Assets & Liabilities Committee ('the ALCO'),
- 3) Bank's Credit Committee ('the BCC'),
- 4) Operating Risk Committee ('the ORC').

RC monitors the integrity, adequacy and efficiency of the risk management system, capital adequacy and implementation of the risk management principles, in compliance with the Bank's strategy, analyses and evaluates compliance with strategic risk tolerance limits defined in the risk management strategy of PKO Bank Polski SA. RC supports the Management Board in the process of banking risk management through preparation of recommendations and making decision on capital adequacy and efficiency of the risk control system. Four sessions of the Risk Committee took place in 2016.

ALCO manages the Bank's assets and liabilities by influencing the structure of Bank's balance and off-balance positions in a way optimal in relation to profitability. The Committee supports the Bank's Management Board in the scope of both Bank and Group's activities related to the balance sheet structure, capital adequacy, profitability, as well as financial, market, liquidity, business, credit (both settlement and pre-settlement) risk and wholesale market transactions. In 2016, the decisions made by the ALCO took place during one of the 5 sessions of the BCC or by circulation.

BCC issues opinions and takes credit decisions in respect of individual significant credit exposures or issues recommendations in this respect to the Management Board of the Bank, issues recommendations and makes decisions regarding non-performing debt management, as well

as makes decisions related to approval of credit risk models, credit risk parameters and results of their validation, with representatives from the Area of Finance and Accounting included in the decision making process. In 2016, the decisions made by the BCC took place during one of the 72 sessions of the BCC or by circulation.

ORC supports the Management Board in operational risk management through decision taking, issuing recommendations and opinions, for instance strategic tolerance limits and operational risk limits, key risk indicators (KRI), assumptions of stress tests, results of validation of operation risk measurement models, expansions and changes in AMA approach and by supporting all activities aimed at lowering of operational risk in all of the areas of the Group's activities. ORC formulates recommendations regarding operational risk management in Group's entities, which are forwarded to Group's subsidiaries as part of the Bank's ownership supervision over those subsidiaries. The Operational Risk Committee made decisions by circulation and during eight sessions taking place in 2016.

The ALCO, BCC, OCR, RC SBRC, SBAC as well as Management and Supervisory Boards receive cyclical reports concerning individual risk tupes.

The Bank supervises the functioning of the Bank Group entities. Within this supervisory function, the Bank defines and oversees their risk management systems and supports the development of such systems; and also takes the risk level of the activity of individual subsidiaries into account as part of the risk monitoring and reporting system at the Group level.

Internal regulations on management of individual types of risk in the Bank Group subsidiaries are defined by internal regulations implemented by such companies upon consultation with the Bank and taking account of recommendations prepared by the Bank. Subsidiaries' internal regulations on risk management are implemented with coherence and comparability of assessment of individual types of risk in the Bank and the Bank Group entities, taking into account the scope and type of relationships between entities of the Group, specific nature and scale of the company's business and market at which it operates. Risk management in the companies of the Bank Group involves in particular:

- involvement of the units of Risk Management Area as well as relevant Committees of the Bank in a review process of significant transactions of the Group entities,
- review (by relevant units from the Risk Management Area and a unit from the President of the Management Board's Area) of internal regulations related to risk management in respective companies of the Bank Group,
- Group companies' risk reporting to relevant Bank's Committees or Management Board,
- monitoring of strategic limits for risk tolerance for the Bank Group.

The priority of the Bank Group is to keep its strong capital position, together with effective capital adequacy management, support of the Polish entrepreneurship, clients' satisfaction, participation in the new market standard creation and cybersecurity activities, having maintained at the same time the priorities related to business efficiency and efficient cost control and appropriate risk assessment.

As a consequence, in 2016 the Bank:

- in May and November 2016, prolonged its own short-term bonds in the amounts of PLN 1 billion (May) and PLN 815 million (November),
- in April 2016 exchanged its maturing short-term bonds for bonds with a maturity period ranging of 1 year, in the amount of EUR 200 million,
- 3) due to acquisition of 100% of shares of Raiffeisen-Leasing Polska S.A., the Management Board has passed a resolution declaring the failure to meet the Dividend Terms (pursuant to the definition provided in the Profit-sharing Resolution) and decided to retain the profits for 2015 and undivided profits from the previous years,



- 4) transferred, pursuant to the Management Board's recommendation, the Bank's profit (PLN 2,571 million) for 2015, as well as retained profits from previous years (PLN 1,250 million - previously disclosed in own funds as "retained earnings") to supplementary and reserve capital,
- included in its Tier 1 capital the net profit for 3q2016 in the amount of PLN 589 million, following the necessary PFSA's consent

In 2016, in the context of risk management, the Bank took preparatory actions necessary for the establishment of a foreign branch in the Czech Republic, with planned start of operations scheduled for March 2017. As a part of aforementioned actions, the Bank applied for the PFSA's approval for a combined use of both AMA and BIA approaches for calculation of own funds requirements for operational risk. The BIA approach will be utilized for the purpose of own funds requirements calculation for operational risk related to the activities of the foreign branch in Czech Republic.

In 4q2016 the Bank implemented changes to the proces of concentration risk management, pursuant to the Recommendation C of the PFSA, relating to concentration risk management. The aforementioned changes will come into life on 1 January 2017 and comprise i.a.: concentration risk management process, new tolerance measures of concentration risk, including internal limits mitigating the concentration risk as well as methods utilized for concentration risk stress-tests.

In the 4q2016 the Bank updated and significantly simplified the credit risk assessment methods for corporate clients in case of specialized financing, allowing for adequate assessment of credit risk of big undertakings related to residential and commercial properties financing.

In the case of model risk, during the 1h2016 the Bank and PKO Bank Hipoteczny continued work on adaptation to the Recommendation W, related to model risk management in banks, published by the PFSA in July 2015. As of 30 June 2016 the model risk management at the Bank is considered to be compliant with Recommendation W.

Within the Bank Group, the mortgage loan portfolio will be gradually transferred to PKO Bank Hipoteczny SA. Value of the portfolio transferred in 2016 amounted to PLN 764 million.

In the 1h2017 PKO Bank Hipoteczny SA carried out two issues of mortgage letters aimed at institutional investors of a total nominal value of PLN 1 billion and maturity date of 5 years and 1 day starting from the issue date. The bonds were purchased by both the domestic and foreign investors. The mortgage letters issued by PKO Bank Hipoteczny SA are one of the most secure financial instruments available at the polish financial market. As a result, they have been awarded the highest possible rating available for polish financial instruments – Moody's Aa3.

In the 2h2017 PKO Bank Hipoteczny SA carried out a benchmark mortgage letters issue aimed for foreign institutional investors of nominal value of EUR 0.5 billion and maturity date of 5 years and 8 months. The interest rate based on the fixed interest rate equaled 0.125 p.p., with profitability of 0.178 p.p. The mortgage letters were purchased by the European Bank for Reconstruction and Development together with other foreign and domestic investors.

The Bank monitors on a cyclical basis the level of risk and develops appropriate methods for its measurement.

2.2. Assessment of members of the management body

Assessment of the Management Board is carried out on a rolling basis by the Supervisory Board, starting from the time of recruitment, throughout the term of office.

Selection of members of the Management Board by the Supervisory Board is pursuant to: binding legal provisions (in particular Commercial Companies Code and the Banking Law), supervisory authority regulations and market standards (in particular resolutions of the PFSA and best market practices of companies listed on the Warsaw Stock Exchange 2016) and the Bank's Articles of Association.

Members of the Management Board should possess the knowledge, skills and experience relevant to the function performed and must commit to the proper performance of their duties.

Diversity policy is taken into account during the selection of Management Board members. Competencies of individual members are complimentary, allowing for the proper Bank management. The Management Board comprises a proper share of members speaking Polish and having necessary experience, competencies and knowledge of the Polish financial market, necessary for the Bank management.

Each of the positions has a required level of competence in the aforementioned areas, expressed in a 4 grade scale.

In the course of carrying out the function of a member of the Management Board, pursuant to art. 395 par. 2 item 3 of the Commercial Companies Code, the general assembly gives a discharge to each of the members of the Management Board, on a yearly basis. Said discharge constitutes a positive assessment of each member, irrespective of the approval of the Management Board's report on the operations of the Company, and a lack of the aforementioned discharge constitutes a negative assessment of a member of the Management Board and in consequence can form a basis for his/her removal from the Management Board.

As of 31 December 2016 there were 9 members of the Supervisory Board and 8 members of the Management Board, all of which complied to the requirements laid out in the art. 22aa of the Baking Law.

2.3. Identifying significant types of risks

The significance of individual types of risk is defined at the level of the Bank and the Bank Group entities.

The following type of risks was deemed to be significant in the Bank:

- credit risk,
- 2) currency risk of retail mortgages
- 3) foreign exchange risk,
- 4) interest rate risk,
- 5) liquidity risk, including financing risk,
- 6) operational risk,
- 7) business risk,
- 8) macroeconomic risk,
- 9) model risk,
- 10) compliance and conduct risk.,
- 11) capital risk,
- 12) loss of reputation risk,
- 13) derivatives risk,
- 14) leverage risk,
- 15) concentration risk¹¹.

Moreover, operational, compliance and business risks have all been recognized as significant in the Group.

While determining the criteria of considering particular risk to be significant, an impact of such risk on the Bank's, the Bank Group companies' and the whole Bank Group:

On the basis of quantitative and qualitative data, at least once per year, a risk significance monitoring is performed in the Bank and Group's entities with a significant risk profile. As the result of the assessment, each type of risk is categorized as "significant" or "non-

 $^{^{\}rm 11}$ Both the conduct and concentration risk are deemed as significant as of 1 January 2017.



significant". Said monitoring is performed in particular in case of a significant change in the scope or profile of the Bank's or the Group's activities.

Risks deemed as significant as of 31 December 2016 in the Bank Group's entities subject to prudential consolidation are presented in Table 2.1.

Table 2.1 Significant Risks in entities of the Bank Group

The companies of the Rank Croup	2016									
The companies of the Bank Group Name of entity		itified as sig	nificant	Permanently significant risks						
		3	Interest rate risk	Handitu	Loss of reputation risk	Model risk	Derivatives risk	Operational risk	Business risk	Compliance risk
Grupa Kapitałowa PKO Leasing SA	х	х	х	х	х	х	х	х	х	х
Grupa Kapitałowa KREDOBANK SA	Х	Х	Х	Х	Х	Х	х	х	Х	х
PKO Towarzystwo Funduszy Inwestycyjnych SA					Х			х	Х	х
PKO BP BANKOWY PTE SA								х	Х	х
Finansowa Kompania "Prywatne Inwestycje" Sp. z o.o.	Х							х	Х	Х
PKO Finance AB								х	Х	х
PKO Bank Hipoteczny SA	Х					Х		х	Х	Х
PKO BP Finat Sp. z o.o.								х	Х	Х

2.4. Internal control

PKO Bank Polski SA's internal control system ensures efficiency and efficacy of the Bank's operations, financial reporting reliability, compliance with Bank's risk management principles, generally applicable laws, internal regulations and supervisory recommendations as well as market standards adopted by the Bank.

Within the internal control framework, the Bank identifies the risks related to each of the internal process functioning within the Bank, products offered, operations and transactions.

As part of its internal control system, PKO Bank Polski SA distinguishes a control function responsible for compliance with control mechanisms relating in particular to risk management in the Bank covering all units of the Bank and their positions, compliance unit responsible, in cooperation with other organizational units of the Bank, for identification, assessment control and monitoring of compliance risk related to generally applicable laws, internal regulations and market standards adopted by the Bank, as well as an independent audit unit, responsible for an objective evaluation and assessment of adequacy and efficacy of risk management and internal control system, except for the internal audit unit.

In order to reduce irregularities and fraud, ensure the quality and accuracy of performed tasks, compliance with the principles of risk management in the Bank, compliance with generally applicable law, internal regulations and market standards adopted by the Bank, as well as reliability of accounting and financial reporting, the Bank utilizes control mechanisms tailored to the specifics of its operations. Utilization of said control mechanisms by the employees falls under internal control and internal audits.

Important issues, operations and transactions are identified in selected areas of the Bank's activities and are selected for monitoring within the internal control framework. Important issues regarding the internal control and control mechanisms are presented in periodical executive reports to the Risk Committee, Management Board, Supervisory Board's Audit Committee and Supervisory Board.



2.5. Credit risk

2.5.1. Introduction

Credit risk is understood as the risk of incurring losses as a result of client's default or the risk of decrease in the economic value of the Bank's receivables as a result of deterioration of the client's credibility.

The purpose of credit risk management is to limit losses arising from the credit portfolio and minimise risk of occurrence of credit exposures which may be subject to impairment, while maintaining the expected level of profitability and value of the credit portfolio.

The Bank and the companies of the Bank Group apply, primarily the following credit risk management principles:

- a credit transaction requires a comprehensive credit risk assessment, expressed as an internal rating or scoring,
- credit risk transactions is measured at the application stage and on a cyclical basis as part of monitoring, and takes into account both the changing external conditions and changes in the financial standing of the borrowers,
- the credit risk assessment of exposures significant for their risk level or value is executed by credit risk assessment units, irrespective of business units,
- the terms and conditions of credit transactions offered to clients depend on the assessment of credit risk level generated by the transaction concerned,
- 5) credit decisions may be taken only by authorised persons,
- credit risk, in particular is diversified by geographical areas, industries, products and clients,
- the expected level of credit risk is mitigated by legal collateral accepted by the Bank, credit spreads charged to clients as well as by impairment allowance and reserves for credit exposures.

2.5.2. Credit risk measurement and assessment

2.5.2.1. Credit risk measurement methods

In order to assess the level of credit risk and credit portfolio profitability, the Bank Group uses various credit risk measurement and assessment methods, including the following:

- 1) probability of default (PD),
- 2) expected loss (EL),
- 3) unexpected loss (UL),
- 4) loss given default (LGD),
- 5) credit value at risk (CVaR),
- share and structure of loans with recognized impairment (according to IAS),
- coverage ratio for impaired loans (according to IAS) with writedowns,
- 8) cost of credit risk.

PKO Bank Polski SA systematically improves the scope of its credit risk parameters, taking into account the IRB approach, as well as the scope of application of risk measures so as to fully cover the Bank's credit portfolio with those methods.

The portfolio credit risk measurement methods allow, among other things, to include credit risk in the price of products; to determine the optimum conditions of financing availability; and to determine impairment write-downs.

The Bank performs analysis and stress-tests regarding the influence of potential changes in macroeconomic environment on the quality of Bank's loan portfolio. The test results are reported to the Bank's authorities. The above mentioned information enables the Bank to

identify and take measures to limit the negative influence of unfavourable market changes on the Bank's performance.

2.5.2.2. Rating and scoring methods

Risk assessment of individual credit transactions is made by the Bank using scoring and rating methods developed, enhanced and supervised by the Banking Risk Division. The functioning of those methods is supported by specialised IT applications. The manner of credit risk assessment is defined in the Bank's internal regulations whose main purpose is to ensure uniform and objective credit risk assessment in the process of granting credit facilities.

The Bank assesses credit risk for individual clients at two levels: client's borrowing capacity and creditworthiness. Client's borrowing capacity assessment consists in verifying the financial standing of a prospective borrower, while creditworthiness assessment covers the client score and credit history obtained from the Bank's internal databases and from external databases.

In case of corporate customers from the small and medium enterprise segment, that meet certain criteria, the Bank assesses credit risk using the scoring method. Such assessment is dedicated to the low-value, plain vanilla loans and is performed in two dimensions: customers' borrowing capacity and creditworthiness. The borrowing capacity assessment involves examination of the customer's economic and financial situation, whereas the creditworthiness assessment involves scoring and evaluation of the customer's credit history obtained from internal databases of the Bank as well as external databases.

In other cases, the credit rating method is used.

The scoring method used assess the credit risk associated with corporate clients is performed in two dimensions: client's and the transaction's. The measures of said scoring being: client's creditworthiness, i.e. rating and scoring of the transaction, i.e. the ability to repay the debt in a given amount and time.

Since credit rating models used for individual clients are developed on the basis of the Bank's internal data, they are tailored to the client's risk profiles. The models are based on the statistical dependency analysis between defaulted debt and client's scoring. The scoring itself comprises financial indicators, as well as qualitative and behavioural factors analysis. The risk assessment is dependent on the size of analysed enterprises. Additionally, the Bank applies credit enterprises assessment model in the form of specialised financing enabling adequate assessment of large undertaking's credit risk which rely on property financing (for instance office premises, shop surfaces, industrial surfaces) and infrastructure projects (for instance communications system, industrial infrastructure, public utility infrastructure).

A periodical evaluation of methods utilized for the assessment of credit risk related to individual credit exposures is performed in order to ensure their validity.

The credit risk assessment process in the Bank takes into account PFSA's requirements specified at the Recommendation S concerning good practices in terms of mortgage-backed credit exposures management and the Recommendation T concerning good practices in terms of retail credit risk exposures management.

The rating and scoring information is used widely by the Bank in the process of credit risk management, within the system of competencies in the area of credit decisions and within the system for credit risk measurement and reporting.

2.5.3. Credit risk control

The credit risk control consists in determination of instruments that diagnose the credit risk level and application of risk control mechanisms that reduce credit risk level, both in credits process and at the portfolio level. The main credit risk control instruments are determined strategic limits of tolerance for credit risk and risk appetite



limits for each the Bank's portfolios, for both the Bank's and the Group's level.

The Bank controls the level of credit exposures to its clients or groups of related clients according to the Banking Law by determining competence limits that define the maximum level of powers required to take credit decisions concerning credit transactions, including condition changes, referred to the Bank's internal regulations concerning division of the credit decision-making competence.

2.5.4. Credit risk monitoring

Credit risk monitoring is performed on the individual credit exposure and portfolio levels.

Monitoring of the individual exposure credit risk is defined by the Bank's internal regulations in particular related to:

- principles regarding creation of impairments related to credit exposures and impairments related to outstanding forward transactions,
- principles regarding operation of the Early Warning System (EWS).
- 3) early monitoring of delays in debt repayment,
- 4) principles regarding classification of credit exposures and establishment of specific provisions.

In order to reduce the response time to the observed warning signs indicating an increase of the credit risk level, the Bank uses and develops IT application of the EWS.

Monitoring of the portfolio's credit risk is defined by the Bank's internal regulations in particular related to:

- 1) control over the portfolio's credit risk on the basis of:
 - a) adopted credit risk measurement tools, including identified sources of the credit risk,
 - analysis of results and actions taken under the systemic risk management framework,
- recommendations regarding remedial actions to be taken in case of an increased credit risk level.

2.5.5. Credit risk reporting

The Bank prepares monthly and quarterly credit risk reports. Credit risk reporting comprises periodical information on the exposure level to the credit portfolio risk. Besides information on the Bank, the reports also includes the credit risk data for the Group entities in which significant credit risk level is identified (for instance the KREDOBANK SA Group, PKO Leasing SA Group).

Moreover, the Bank prepares daily, weekly, monthly and quarterly reports on credit exposures related to derivatives risk, and the quarterly reports refer to the whole Bank Group. The reports comprise information on the risk exposure of derivatives and information on the use of risk limits. The recipients of the reports are mainly: BCC, ALCO, RC the Management Board and the Supervisory Board.

2.5.6. Credit risk related management actions

The main credit risk management tools used by the Bank, in particular: minimum transaction conditions (risk parameters) defined for a given type of transaction (e.g. the minimum value of the LTV rate, the maximum loan amount, the required collateral),

 the principles to determine crediting availability, including cut-off points - the minimum number of points awarded during the creditworthiness assessment made using the scoring system (for individual and SME) or the rating class (for institutional), from which the loan transaction can be made with a given client,

- concentration limits defined in art. 395 item 1 of CRR and also in Banking Law,
- industry limits defining the credit risk appetite that constrains the risk level related to financing of institutional clients that conduct their businesses in industries characterized by a high level of credit risk,
- limits related to the credit exposures of the Bank's clients resulting for instance from Recommendations S and T,
- credit limits defining the maximum Bank's concentration in case of a specific counterparty or country in relation to wholesale market transactions, settlement limits and tenor limits,
- 6) competence limits defining the maximum level of powers required to take credit decisions with respect to the Bank's clients; the limits depend mainly on the Bank's credit exposure amount to a given client (or a group of related clients) and the period of credit transaction; the competence limits depend on the credit decision-making level (within the Bank's organisational structure),
- 7) minimum credit spreads credit risk spreads related to a specific credit transaction executed by the Bank with a given corporate client, and the interest rates offered to a client may not be lower than the reference rate plus credit risk spread.

The credit risk collateral policy plays particular role in determination of minimum conditions of transactions. The purpose of the collateral policy of the Bank and the Group is to properly hedge the credit risk, including through establishing securities characterized by a maximum potential recovery value, in the event of debt collection.

2.5.7. Exposure to counterparty credit risk

PKO Bank Polski SA cooperates on the wholesale market with financial institutions headquartered in 59 countries. The Bank, within previously set limits, can enter into transactions with 307 counterparties, including local and foreign banks, insurance companies, pension and investment funds. The scope of executed transactions includes deposits, securities transactions, currency exchange and derivatives.

The Bank has access to two clearing houses (the first one: as a direct participant, second: as an indirect participant) through which EMIR¹² regulated interest rate derivative transactions, with selected local and foreign counterparties, are settled.

In order to limit credit risk relating to derivative and securities transactions, the Bank enters into framework agreements with its counterparties (according to ISDA, ICMA and The Polish Bank Association). Those agreements enable off-setting of due liabilities (mitigation of settlement risk) and non-due liabilities (mitigation of presettlement risk), arising from derivative transactions as well as utilisation of close-out netting at the moment of termination of the agreement due to infringement or event warranting termination in relation to one or both parties.

Additionally, the Bank enters into collateral agreements (CSA – Credit Support Annex – standard developed by ISDA or PBA collateral agreement) with its counterparties, on the basis of which, each of the parties, after meeting certain criteria specified in the agreement, undertakes to establish appropriate collateral along with the right to set it off.

The Bank utilizes international Loan Market Association standards when entering into credit transactions with financial institutions headquartered outside of the Republic of Poland.

Entering into a framework agreement with counterparty is the basis for verification of internal limit per counterparty and of the length of

¹² EMIR (ang. European Market Infrastructure Regulation) – Regulation of the European Parliament and the Council (EU) No 648/2012 of 4 July 2012 with regard to derivatives which are trading outside the regulated market, the main counterparties and transactions repository, became effective on 16 August 2012.



period of the Bank's exposures to forward or repurchase agreement transactions.

The Bank regularly monitors the financial situation of its counterparties and sets risk-adequate limits for pre- and post-settlement exposures for single counterparties.

Assessment of counterparty credit risk forms a basis for CVA and DVA adjustments.

In order to mitigate counterparty credit risk, the Bank establishes credit and settlement limits. The credit limit defines the Bank's maximum exposure to a given counterparty or country arising from wholesale market transactions. The settlement limit defines a maximum daily cash flow value from a single counterparty or country.

Pursuant to the Bank's methodology, the value of limits for credit institutions is depended on counterparty's rating as well as own funds level of the Bank and the counterparty, and in case of non-financial institutions: additionally on a treasury survey, determining the client's demand for heading transactions.

The amount of inner capital for the risk of default of financial institution, country or central bank counterparties is calculated on the basis of on-balance sheet equivalent of the on- and off-balance sheet transactions. Depending on the rating, the exposure is assigned a relevant credit quality step and risk weight, calculated using the internal methods.

Credit risk collateral policy plays a particular role in defining the transaction's minimum conditions. The purpose of the collateral policy of the Bank and the Group is to properly hedge the credit risk, including through establishing securities characterized by a maximum potential recovery value, in the event of debt collection. The policy concerning debt collateral is defined in the internal regulations of the Bank Group entities.

The specific types of collateral that are actually established depend on the product and client type.

As of 31 December 2016, the CSA collateral agreements existed between the Bank and its counterparties, for which the collateral value depended on the Bank's credit rating. In case of a downgrade of the Bank's rating below the level defined in the agreement, the value of the collateral (deposited on a daily basis) may be modified according to the methodology described in the agreement and/or additional margin may be required.

As of 31 December 2016, a positive gross value of derivative transactions with financial institutions amounted to PLN 1.743 million. The above amount was calculated as the total of positive market values of all open transactions. The net credit exposure, after taking into account the netting of transactions, for counterparties with framework agreements was ca. PLN 535 million (excluding centrally-cleared transactions). The profits from netting amounted to PLN 1.208 million. The value of collaterals received on the basis of CSA and PBA collateral agreements amounted to ca. PLN 563 million.

As of 31 December 2016 the Bank had no credits derivatives.

As of 31 December 2016 the Bank recognized credit value adjustments in the valuation of financial derivatives concluded with non-financial business entities based on a performed analysis of recoverability of the exposures. The Bank's adjustment included the market value of credit risk as assessed by the Bank. The analysis covered all significant exposures with the positive valuation of financial derivatives contracted with non-financial business entities. In particular, the adjustment included the risk of non-performance of agreements executed with a counterparty, on the basis of i.a. analysis of entity's financial situation, probability of default of selected contracts as well as the value of the amounts received from collaterals.

The Bank enters into transactions with financial institutions characterized by a diverse external credit rating, ranging from AAA to CCC (Table 2.2).

Table 2.2 The quality of exposures* to financial institutions**

PKO Bank Polski SA	PKO Bank Polski SA						
Rating	2016						
AAA	4.0%						
AA	32.0%						
A	54.0%						
BBB	8.0%						
ВВ	1.0%						
В	0.0%						
CCC	0.0%						
No rating	1.0%						
Total	100.0%						

^{*} Exposure is the total of the nominal exposure on account of bank deposits and securities and the total of derivatives valuations after netting them for counterparties with whom there have been concluded

The above listing is based on external rating granted by Moody's, Standard and Poor's and Fitch's rating agencies, mapped to a uniform rating scale.

The value of counterparty risk exposures is computed by market value method according to the part 3, title 2, chapter 6, section 3 of CRR. In order to specify current cost of contracts recreation that have positive value, the Bank assigns current market values to that contracts.

2.5.8. Credit risk adjustments

2.5.8.1. Impairment of credit exposures

The Bank Group reviews each month the credit exposures to identify impaired credit exposures; measures the impairment of its credit exposures; and establishes write-downs and provisions. The process of establishing write-downs and provisions comprises the following stages:

- identification of the conditions of impairment and events significant for such identification,
- recording in the IT systems the events significant for identification of the conditions of impairment of credit exposures,
- 3) defining the method for impairment measurement,
- measuring the impairment and deciding on a write-down or provision,
- 5) verification and aggregation of the impairment measurement results,
- 6) recording of the impairment measurement results.

The method for defining the amount of the write-downs related to the impairment of credits and loans depends on the type of impairment sources identified and the individual significance of the credit exposure concerned. The following events are specifically treated as the conditions of individual impairment:

- breaking the contract provision by debtor i.e. for example delay in repayment of principal or interest longer than 90 days (to specify past due period of credit, the amounts of unpaid on time interest or principal instalments above defined thresholds are taken into consideration),
- deterioration of the debtor rating assessment to the level that indicates significant danger for repayment resulting from appearance of debtor substantial financial difficulties ('H1' rating concerning non-financial clients and 'G', 'H' ratings concerning financial institutions),
- entering into restructuring agreement or granting a discount concerning debt repayment (the indication of impairment is recognized, if the convenience granted to the consumer is a result of its difficult legal or economic position)

^{**} Exposures to institutions from outside the Group



- 4) occurrence of high probability of default or debtor restructuring,
- 5) setting liabilities in foreclosure,
- 6) debt enforcement proceeding against debtor,
- declaration of debtor bankruptcy or filing an bankruptcy application,
- 8) receivables contestation by debtor,
- 9) launching of remedial actions against debtor,
- establishing of board of commissioners to supervise debtor activities or debtor activity suspension,
- additional conditions identified with regard to exposures of housing association in relation to mortgages of 'old portfolio' quarantee under the Treasury.

In determining the past due period of the credit, the outstanding amounts of interest or principal instalments above defined thresholds are taken into account.

The Group divides credits and loans on the grounds of exposures volume. The Bank Group uses three methods for impairment assessment:

- the individual method for individually significant loans which meet the condition of individual impairment or require individual assessment due to the specific nature of a transaction and events that condition exposure repayment. In the individually significant exposure portfolio, each individual credit exposure is analysed individuated whether exist impairment conditions and the identified loss level.
- 2) the portfolio method, applied in the case of individually insignificant loans for which the condition of individual impairment has been identified. With respect to individually insignificant exposures the loss identification and measurement is undertaken by using portfolio risk parameters, estimated by statistic methods. If loss is identified with regard to individual credit exposure, the adequate write-down is made for it.
- 3) the collective method (IBNR), used in the case of loans where no conditions of individual impairment have been identified, but there is the possibility of occurrence of incurred but not identified losses. If loss is not recognised at the individual exposure level, exposure is categorised under portfolio of assets that has similar characteristic, assessed collectively and is embraced write-down defined for particular group in respect to ensuing unreported loss (IBNR write-down).

The write-down for impairment of the balance sheet value of exposure is the difference between the balance sheet value of that exposure and the current value of the expected future cash flows from that exposure:

 when defining the write-down under the individual method, the expected future cash flows are assessed for each exposure individually, the possible scenarios of performance of the

- agreement taken into account and weighed with the probability of their fulfilment
- 2) the write-down for credit exposure impairment defined under the portfolio or collective method equals the difference between the balance sheet value of those exposures and the current value of the expected, except future credit losses not incurred, assessed with statistical methods on the basis of historical monitoring of exposures from homogeneous portfolios.

The provision for off-balance sheet credit exposures is established in the amount equal to the expected (assessable) loss of economic benefits resulting from such exposures.

The provision is set as the difference between the expected value of the balance sheet exposure to arise from the off-balance sheet liability (from the date as at which the assessment is made to the date of occurrence of the overdue debt that is identified as the condition of individual impairment) and the current value of the expected future cash flows generated from the balance sheet exposure arising from the off-balance liability.

When determining the provision under the individualised method, the expected future cash flows are assessed for each exposure individually.

When determining the provision under the portfolio or collective method, portfolio parameters are used that are assessed by means of statistical methods on the basis of historical exposures of the same characteristics.

For the accounting purposes, a financial assets item is considered as past-due, in case a counterparty failed to execute payment upon its maturity.

Impaired exposures are defined as exposures, in case of which a trigger of default has been identified and, in an assessment of future cash flow, impairment in value has been recognized and offsetting write-down is made.

Exposures are considered to be at risk and classified as such, in case exposures for which one or both of below events occur:

- the Bank decides that there is a small probability of full repayment towards the Bank or any of the Group's entities of debt towards the Bank without such actions as collateral foreclosure by the Bank (for retail exposures, the above conditions are verified on the level of the exposure, not the debtor).
- the delay in repayment of any significant debt towards the Bank or any Group's entity by the debtor exceeds 90 days.

The definition of exposures at risk among the companies of the Bank Group is similar to the one adopted by the Bank.

In terms of adjustment for specific credit risk, the Bank uses the impairment related to value loss of assets, which was recognized in the Bank's Tier 1 capital, pursuant to the CRR and its implementing acts.



Table 2.3 Total credit and counterparty risk exposure by class

The Bank Group	2016		2015			
Exposure class	Total Exposure*	Average Exposure**	Total Exposure*	Average Exposure**		
Exposures to central governments or central banks	50 889	49 010	47 786	40 039		
Exposures to regional governments or local authorities	9 199	9 579	10 329	10 253		
Exposures to public sector entities	525	535	224	384		
Exposures to multilateral development banks	202	159	-	-		
Exposures to international organisations	=	=	-	=		
Exposures to institutions	8 048	6 926	5 962	7 263		
Exposures to corporates	49 091	46 555	48 778	56 262		
Retail exposures	95 571	92 133	87 893	82 690		
Exposures secured by mortgages on immovable property	49 103	45 286	42 780	43 126		
Exposures in default	6 332	6 777	8 364	8 243		
Exposures associated with particularly high risk	850	767	488	584		
Exposures in the form of covered bonds	-	-	-	-		
Items representing securitisation positions	-	-	-	-		
Exposures to institutions and corporates with a short-term credit assessment	-	-	-	-		
Exposures in the form of units or shares in collective investment undertakings ('CIUs')	18	130	16	17		
Equity exposures	879	873	1 183	955		
Other items	15 597	14 895	15 415	15 128		
Total	286 304	273 627	269 218	264 943		

^{*} The value of balance sheet exposures and balance sheet equivalents of liabilities and off-balance sheet transactions prior to the application of credit risk mitigation

In 2016, retail (33.4%) and central governments or central banks (17.8%) exposures constituted the biggest part of the Group's exposures. Remaining exposure's share ranged from 0.1% to 17.2% (table 2.3).

Below are presented credits and loans and revaluation write-downs by industry (Table 2.3) and geographical (Table 2.4) structure.

Table 2.4 Structure of exposures* revaluation write-downs** and exposures in default by client type/industry

PKO Bank Polski SA	2016							
Type of client / branch	Impairment write-downs	Exposures in default	Specific and general credit risk adjustments					
Institutional clients***, of which:	7 019	2 520	3 821					
Wholesale and retail trade, repair of motor vehicles, including motorcycles	1 500	755	783					
Construction	1 248	432	802					
Industrial processing	1 188	379	691					
Accommodation and catering services activities	1 034	107	370					
Real estate activities	606	99	297					
Professional, scientific and technical activities	422	371	263					
Other exposures	1 021	378	615					
Banks	-	-	-					
Governments	6	-	6					
Individuals	4 343	3 375	2 860					
Other****	74	=	65					
Total	11 442	5 895	6 752					

 $^{^{\}star}$ Average Exposure was calculated as arithmetic mean of exposures for each quarter of 2015 and 2016.

^{*} Including financial lease receivables
** Applies to exposures with identified condition of individual impairment (without IBNR)
*** Sum includes IFRS income in amount of 629.1 K PLN

^{****} Exposures managed at the Head Office level including the following, among other items: securities, other assets

Rank Polsk

CAPITAL ADEQUACY AND OTHER INFORMATION SUBJECT TO DISCLOSURE OF THE PKO BANK POLSKI SA GROUP FOR THE YEAR ENDED 31 DECEMBER 2016 (IN PLN MILLION)

Table 2.5 Exposures* revaluation write-downs** and exposures in default by region

PKO Bank Polski SA	2016		•	
Region	Impairment write-downs	Exposures in default	Specific and general credit risk adjustmen	
Poland (PKO Bank Polski)***, including:	11 442	5 895	6 752	
Mazovia****	3 095	1 333	1 611	
Łódzkie	1 029	534	597	
Opole-Silesia	829	607	543	
Lesser Poland / Świętokrzyskie	821	434	488	
Greater Poland	782	461	491	
Pomerania	718	518	467	
Kujawsko-Pomorskie	715	406	473	
Lower Silesia	667	403	431	
Western Pomerania	601	419	386	
Podlaskie	476	306	308	
Central Macroregion	386	231	221	
Lubelsko-Podkarpackie	384	20	218	
Northern Macroregion	260	79	157	
Western Macroregion	206	66	136	
Southern Macroregion	194	18	99	
North Eastern Macroregion	131	33	72	
South Eastern Macroregion	58	9	21	
Other****	57	5	9	
South Western Macroregion	34	12	25	

^{*} Including financial lease receivables

Table 2.6 Reconciliation of changes in adjustments for impaired exposures*

TPKO Book Polski SA	Balance as at 31.12.2015			Balance as at 31.12.2016	Change in the period
On-balance sheet exposures	7 267	-1 834	1 308	6 741	-526
Off-balance sheet exposures	14	0	3	11	-3
Total	7 282	-1 834	1 311	6 752	-530

2.5.9. Use of credit risk mitigation techniques

As of December 2016 no netting of on- or off- balance sheet items pursuant to art. 205 of the CRR was used, therefore the provisions of art. 453 letter a) of the CRR, regarding the policies and processes for, and an indication of the extent to which the entity makes use of, on- and off- balance sheet netting, are not applicable.

As of 31 December 2016, the Bank utilized provisions laid out in art. 298 of the CRR, regarding effects of recognition of netting agreements, for the purpose of calculation of on-balance sheet equivalent of derivatives. Said agreements are entered into primarily with institutional counterparties. They allow for a settlement of all the transactions covered by the agreement, even in an event of default of one of the parties, with a total sum of market value of individual transactions. The agreements being netted meet the requirements laid out in art. 295-297 of the CRR.

The market value forms the basis for assessment of value of immovable property, collateral and rights. Pursuant to regulations regarding the appraisal of collateral, including immovable property, the market value is set on the basis of the Bank's assessment or evaluation of an independent appraiser.

- property, economic and financial or social and financial situation of entities providing personal collateral,
- the state and the market value of the collateral objects and their susceptibility to the depreciation during of the life of collateral (the impact of technological wear of the collateral on its value),

- the potential economic benefits of the Bank arising from a particular method of securing debts, in particular, the ability to deduct write-downs related to impairment losses,
- 4) method of collateral establishment, including: the typical duration and complexity of formal operations, as well as necessary costs (cost of upholding the collateral and debt enforcement from the collateral), using the Bank's internal regulations relating to collateral evaluation,
- 5) complexity, time-intensity as well as economic and legal conditions related to the effective enforcement from the collateral, in the context of limitations and existing rules of execution related to distribution of amounts received from individual execution and/or bankruptcy proceedings, debt seniority.

Particular types of collateral are established based on the product and segment of the client.

For credits for residential and commercial real estate, a collateral in a form of a mortgage on immovable property is obligatory.

Until an effective (based on the type and amount of the credit) collateral is established, the Bank may accept temporary collateral in another form.

When granting retail loans to individual clients, the Bank usually accepts personal collateral (a guarantee under civil law or a bill of exchange) or establishes registered pledge on the bank account, car or securities

Collateral on loans financing small and medium enterprises as well as corporate clients is established, among other things, on business

^{**}Applies to exposures with identified condition of individual impairment (without IBNR and exposures assessed on individual basis with insignificant write-off)

^{***}Sum includes IFRS income in amount of 629.1 K PLN

^{****} Includes the region of Warsaw and the "Head Office"

^{*****} Unallocated portfolio



liabilities, bank accounts, movables, immovable property or securities or in the form of BGK guarantees (commonly applied in case of SME).

The value of exposures secured with recognized financial collateral allowing for reduction of own funds requirement amounted to PLN 4.012 million as of 31 December 2016 (tables 2.7 and 2.8).

Table 2.7 Exposures collateralise with recognised financial collateral

The Bank Group	2016	2015
Total	1 474	1 642
Exposures to central governments or central banks	0	C
Exposures to regional governments or local authorities	0	C
Exposures to public sector entities	2	(
Exposures to multilateral development banks	0	(
Exposures to international organisations	0	(
Exposures to institutions	389	521
Exposures to corporates	693	688
Retail exposures	107	61
Exposures secured by mortgages on immovable property	0	3
Exposures in default	284	369
Exposures associated with particularly high risk	0	(
Exposures in the form of covered bonds	0	(
Items representing securitisation positions	0	(
Exposures to institutions and corporates with a short-term credit assessment	0	C
Exposures in the form of units or shares in collective investment undertakings ('CIUs')	0	C
Equity exposures	0	C
Other items	0	C

Table 2.8 Exposures collateralised with guarantees

The Bank Group	2016	2015
Total	2 538	3 006
Exposures to central governments or central banks	0	C
Exposures to regional governments or local authorities	0	0
Exposures to public sector entities	104	11
Exposures to multilateral development banks	0	0
Exposures to international organisations	0	0
Exposures to institutions	0	0
Exposures to corporates	837	993
Retail exposures	1 402	1 725
Exposures secured by mortgages on immovable property	0	1
Exposures in default	195	275
Exposures associated with particularly high risk	0	0
Exposures in the form of covered bonds	0	0
Exposures to institutions and corporates with a short-term credit assessment	0	0
Exposures in the form of units or shares in collective investment undertakings ('CIUs')	0	0
Equity exposures	0	0
Other items	0	0
Items representing securitisation positions	0	0

As part of the credit risk mitigation techniques, the Bank uses guarantees and financial collateral as funded credit protection (mainly registered pledges on securities, irrevocably blocked funds on a bank account or a deposit account at the Bank or payment of cash to the account of the Bank). The Bank applies the Financial Collateral Comprehensive Method, which makes use of collateral haircuts. Apart from financial collateral and guarantees, the Bank uses mortgages to classify its exposures as belonging to the class of exposures secured by mortgages on immovable property as well as for the purpose of preferential risk weight assignment.

The tables below (tables 2.9 and 2.10) represent information on the value of the exposures (before and after risk mitigation techniques) of the Bank, by exposure category and credit quality steps as of 31 December 2016. Over 79% of Bank's exposures have no assigned credit quality step. The above is due to a low number of entities operating on the Polish market possessing the creditworthiness rating by recognized rating agencies. The exposures that involve the credit quality rating are mainly: securities of and receivables to the State Treasury of Poland and the National Bank of Poland as well as transactions with other banks.



Table 2.9 Value of exposures* before application of the credit risk mitigation techniques

	2016	2016						Other Group	Adjustments	
PKO Bank Polski SA	Counterpa	Counterparty's credit quality rating							and	Total
	1	2	3	4	5	6	none	companies	exclusions	
Exposures to central governments or central banks	0	48 462	0	0	0	0	623	1 804	0	50 889
Exposures to regional governments or local authorities	0	486	232	0	0	0	8 414	68	0	9 199
Exposures to public sector entities	0	0	0	0	0	0	525	0	0	525
Exposures to multilateral development banks	202	0	0	0	0	0	0	0	0	202
Exposures to international organisations	0	0	0	0	0	0	0	0	0	0
Exposures to institutions	1 230	2 978	1 048	73	55	216	5 965	7 310	-10 827	8 048
Exposures to corporates	423	0	2 780	0	0	0	50 733	8 395	-13 239	49 091
Retail exposures	0	0	0	0	0	0	85 715	9 859	-3	95 571
Exposures secured by mortgages on immovable property	0	0	0	0	0	0	43 850	5 261	-8	49 103
Exposures in default	0	0	0	0	0	0	6 040	248	44	6 332
Exposures associated with particularly high risk	0	0	0	0	0	0	690	0	160	850
Exposures in the form of covered bonds	0	0	0	0	0	0	0	0	0	0
Items representing securitisation positions	0	0	0	0	0	0	0	0	0	0
Exposures to institutions and corporates with a short-term credit assessment	0	0	0	0	0	0	0	0	0	0
Exposures in the form of units or shares in collective investment undertakings ('CIUs')	0	0	0	0	0	0	0	18	0	18
Equity exposures	0	0	0	0	7	0	2 647	0	-1 775	879
Other items	0	0	0	0	0	0	14 407	1 174	17	15 597
Total	1 855	51 926	4 060	73	62	216	219 608	34 135	-25 631	286 304

^{*} The value of balance sheet exposures and balance sheet equivalent of liabilities and off-balance sheet transactions before application of the credit risk mitigation techniques

Table 2.10 Value of exposures* after application of the credit risk mitigation techniques

	2016							o., o	Adjustments	
PKO Bank Polski SA	Counterpa	rty's credit	quality rat	ing				Other Group	and	Total
	1	2	3	4	5	6	none	companies	exclusions	
Exposures to central governments or central banks	0	48 462	0	0	0	0	2 871	1 804	0	53 138
Exposures to regional governments or local authorities	0	470	232	0	0	0	8 571	68	0	9 340
Exposures to public sector entities	0	0	0	0	0	0	420	0	0	420
Exposures to multilateral development banks	202	0	0	0	0	0	0	0	0	202
Exposures to international organisations	0	0	0	0	0	0	0	0	0	0
Exposures to institutions	1 097	2 847	967	31	55	198	6 007	7 310	-10 827	7 684
Exposures to corporates	385	0	2 417	0	0	0	50 030	8 298	-13 239	47 891
Retail exposures	0	0	0	0	0	0	84 347	9 834	-3	94 178
Exposures secured by mortgages on immovable property	0	0	0	0	0	0	43 850	5 261	-8	49 103
Exposures in default	0	0	0	0	0	0	5 769	247	44	6 060
Exposures associated with particularly high risk	0	0	0	0	0	0	690	0	160	850
Exposures in the form of covered bonds	0	0	0	0	0	0	0	0	0	0
Items representing securitisation positions	0	0	0	0	0	0	0	0	0	0
Exposures to institutions and corporates with a short-term credit assessment	0	0	0	0	0	0	0	0	0	0
Exposures in the form of units or shares in collective investment undertakings ('CIUs')	0	0	0	0	0	0	0	18	0	18
Equity exposures	0	0	0	0	7	0	2 647	0	-1 775	879
Other items	0	0	0	0	0	0	14 407	1 174	17	15 597
Total	1 684	51 779	3 616	31	62	198	219 609	34 013	-25 631	285 360

^{*} The value of balance sheet exposures and balance sheet equivalent of liabilities and off-balance sheet transactions after application of the credit risk mitigation techniques

2.5.10. Currency mortgage of households risk management

As a result of withdrawal from defence of EUR/CHF exchange rate by central bank of Switzerland in January 2015 the Swiss franc appreciates significantly in relation to foreign currencies, including Polish zloty. In 2016 the Swiss franc rate sustained approximate level in comparison to 2015. The Bank is constantly analysing the impact of this events on financial results including quality deterioration risk of mortgage portfolio denominated in CHF. The risk is partly neutralised by supporting low reference interest rates LOBOR CHF.

The Bank undertook series of – continuing them also currently – in order to help clients and constrain credit risk increase at once connected with CHF rate appreciation – among other things decreasing

of CHF/PLN transaction exchange rate, that the amount of CHF to repayment is converted (so-called currency spread) and inclusion of negative LIBOR rate for all clients.

The Bank particularly analysis currency mortgage portfolio of households. The Bank constantly monitors the quality and analysis quality deterioration risk of this portfolio. Currently, quality of portfolio stays at the acceptable level.

The Bank includes risk of currency mortgage of households in capital adequacy and own funds management.

Table 2.11 presents qualitative analysis of CHF credits of the Bank Group.



Table 2.11 Qualitative analysis of CHF credits of the Bank Group

CHF credits and loans provided to clients under write-down calculation	2016			
method (in PLN)	Financial institutions	Enterprises	Households	Total
Calculated under individualized method, including:	0	247	166	413
recognised impairment	0	220	137	358
Calculated under the portfolio method with recognized impairment	0	26	1 185	1 211
Calculated under the collective method (IBNR)	5	361	29 361	29 727
Gross credits and loans provided to clients	5	634	30 712	31 350
Exposure write-downs calculated under individualized, including:	0	-90	-64	-154
recognised impairment	0	-63	-64	-128
Exposure write-downs calculated under the portfolio method	0	-20	-793	-812
Exposure write-downs calculated under the collective method (IBNR)	0	-2	-69	-72
Total - write-downs	0	-111	-926	-1 038
Net credits and loans provided to clients	5	523	29 785	30 313

2.6. Concentration risk

2.6.1. Introduction

Concentration risk is understood as risk of arising significant losses or considerable change of the Bank's risk profile due to excessive concentration:

- 1) related to exposure:
 - c) of individual clients and the groups of related clients,
 - d) of clients operating on the same economic sector,
 - e) of clients operation on the same geographic region, the Bank Group entities (considering both cross-border and domestic)
 - f) of denominated or indexed to the same currency,
- related to the applied credit risk mitigation techniques and large indirect credit exposures, such as a singular security provider.

The purpose of concentration risk management is to provide a secure credit portfolio structure by constraining dangers resulted from excessive concentration related to exposures which are marked by the potential to generate such large losses that may affect the Bank's financial condition or capability to run core business or provide a significant change of the Bank risk profile.

2.6.2. Concentration risk identification and measurement

Concentration risk identification consists in recognition and specification of all factors that may have impact on risk arising or changing the risk level, including:

- 1) recognition of the groups of related clients, and all others factors,
- aggregation of exposures of clients or the groups of related clients.
- 3) taking into account exclusion of large exposures form control limits, in accordance with CRR.

The Bank identifies the concentrate risk to which is exposed by:

- 1) including all significant concentration risk factors for the Bank,
- estimating concentration of balance sheet and off-balance sheet items.
- conducting analysis within intersections of different business lines and organisational units,
- application of methods and instruments that enable systematic identification of concentration risk,

- including concentration risk resulted from product specification exposure,
- including concentration risk resulted from exposures of both banking and trading books and risk resulted from combination of these two risks,
- taking into account development of economic and financial markets situations and activities of their participants, including system factors,
- utilisation of stress tests.

To measure concentration risk on the unitary level, the concentration risk measures are applied, in particular:

- 1) concentration rates,
- 2) rates that estimate the degree of diversification (for instance Herfindahl-Hirschman index HHI),
- 3) Gini index,
- 4) graphical concentration portfolio measures (for instance the Lorenz curve).

2.6.3. Concentration risk control

The Bank controls concentration risk on both unitary and consolidated level.

In 4q2016 the Bank launched changes in concentration risk exposures management process, which form a realisation of requirements of amended PFSA's Recommendation C concerning concentration risk management.

2.6.4. Concentration risk monitoring

The Bank Group monitors the exposures of concentration risk in respect of:

- 1) exposures to individual clients or groups of related clients,
- exposures to groups of clients or credit portfolios exposed to a single risk factor.

The Bank Group analyses the concentration in relation to:

- 1) geographical region,
- 2) currencies,
- 3) industries,
- 4) mortgage-backed credit exposures,
- 5) the largest entities,
- 6) the largest capital groups.



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

Table 2.12 Exposures towards the 10 biggest clients*

The Bank Group	2016		2015				
No.	Exposure	% of own funds	Exposure	% of own funds			
1	3 200	10.4%	4 107	15.2%			
2	2 887	9.4%	2 722	10.0%			
3	2 450	7.9%	2 080	7.7%			
4	2 371	7.7%	1 910	7.1%			
5	2 064	6.7%	1 842	6.8%			
6	1 583	5.1%	1 669	6.2%			
7	1 571	5.1%	1 594	5.9%			
8	1 482	4.8%	1 217	4.5%			
9	1 435	4.6%	1 213	4.5%			
10	1 081	3.5%	1 008	3.7%			
Total	20 124	65.2%	19 361	71.5%			

 $^{^{\}star}$ Total (balance sheet and off-balance sheet) exposure to non-banking sector clients for comparison to the exposure concentration limit

As at 31 December 2016 and 31 December 2015 the concentration limits were not exceeded. As at 31 December 2016, the largest exposure to an individual entity amounted to 10.4% of consolidated own funds. The group of the 10 biggest borrowers of the Group consist of clients of PKO Bank Polski SA only.

As at 31 December 2016 the largest level of concentration risk of the Bank Group towards group of related entities according to the Banking Law amounted to 10.2% of the consolidated own funds.

Table 2.13 Exposure towards the 5 biggest capital groups*

The Bank Group	2016		2015			
No.	Exposure	% of own funds	Exposure	% of own funds		
1	3 160	10.2%	4 248	15.7%		
2	2 468	8.0%	3 289	12.1%		
3	2 396	7.8%	2 926	10.8%		
4	2 118	6.9%	2 746	10.1%		
5	2 091	6.8%	2 046	7.6%		
Total	12 233	39.6%	15 254	56.3%		

^{*} Total (balance sheet and off-balance sheet) exposure to non-banking sector clients for comparison to the exposure concentration limit

The credit concentration risk in respect of geographical regions is monitored in relation to:

- financial institutions by the country of origin of the counterparty's head office,
- 2) other clients by regional division of the Bank's organisational units extending the loan.

In order to ensure geographical diversification of the Bank's exposures to financial institutions, the Bank applies limits of total exposure for individual countries.

As at 31 December 2016, there was no significant geographical concentration level in the Group's credit portfolio (Table 2.14).



Table 2.14 Geographical structure of exposures*

The Bank Group	2016														
Country / region	No. of exposure	class**													Total
Country / region	A	В	С	D	E	F	G	Н	I	J	K O	F	,	Q	Total
Poland, including:	49 085	9 132	525	0	0	7 686	52 411	85 594	43 750	6 025	690	0	2 654	14 407	271 959
Mazovia	0	8	2	0	0	2	20 772	13 563	5 889	2 759	0	0	0	0	42 996
Kujawsko-Pomorskie	0	0	2	0	0	0	1 644	7 116	12 998	133	0	0	0	0	21 893
Silesian	0	0	0	0	0	0	1 402	8 798	3 168	30	0	0	0	0	13 397
Lower Silesia	0	541	1	0	0	0	1 648	7 221	2 901	21	0	0	0	0	12 334
Greater Poland	0	148	19	0	0	0	2 016	6 832	3 284	8	0	0	0	0	12 307
Lesser Poland	0	0	0	0	0	0	113	5 757	2 241	8	0	0	0	0	8 119
Pomerania	0	20	0	0	0	0	115	5 296	2 116	5	0	0	0	0	7 552
Łódzkie	0	0	0	0	0	0	179	5 450	1 345	13	0	0	0	0	6 987
West Pomerania	0	0	0	0	0	0	142	3 697	2 372	24	0	0	0	0	6 235
Lubelskie	0	75	0	0	0	0	879	3 916	1 145	11	0	0	0	0	6 025
Warmińsko-Mazurskie	0	35	0	0	0	0	404	3 608	1 040	5	0	0	0	0	5 091
Lubuskie	0	0	0	0	0	0	89	3 314	1 171	3	0	0	0	0	4 577
Opolskie	0	0	0	0	0	0	61	3 024	1 118	5	0	0	0	0	4 208
Podlaskie	0	104	62	0	0	0	450	2 523	750	53	0	0	0	0	3 944
Podkarpackie	0	0	0	0	0	0	56	2 921	932	10	0	0	0	0	3 920
Świętokrzyskie	0	0	0	0	0	0	14	1 812	479	2	0	0	0	0	2 307
Other***	49 085	8 201	437	0	0	7 684	22 428	745	800	2 935	690	0	2 654	14 407	110 067
United Kingdom	0	0	0	16	0	1 162	9	66	46	2	0	0	0	0	1 301
Switzerland	0	0	0	0	0	915	0	2	7	0	0	0	0	0	924
Luxembourg	0	0	0	186	0	323	259	0	1	0	0	0	0	0	768
Norway	0	0	0	0	0	167	353	6	3	0	0	0	0	0	529
Belgium	0	0	0	0	0	410	0	2	3	0	0	0	0	0	
Austria	0	0	0	0	0	316	0	1	0			0	0	0	
Liberia	0	0	0	0	0	0	281	0	0	0	0	0	0	0	
Sweden	0	0	0	0	0	0	231	2			0	0	0	0	
Germany	0	0	0	0	0	125	77	9	15	1	0	0	0	0	
Ukraine	0	0	0	0	0	211	0	3	0	9	0	0	0	0	223
Other	0	0	0	0	0	250	314	31	22	2	0	0	0	0	619
Total (PKO BP SA)	49 085	9 132	525	202	0	11 565	53 936	85 715	43 850	6 040	690	0	2 654	14 407	277 800
Group subsidiaries	1 804	68	0	0	0	7 310	8 395	9 859	5 261	248	0	18	0	1 174	34 135
Adjustments and exclusions	0	0	0	0	0	-10 827	-13 239	-3	-8	44	160	0	-1 775	17	-25 631
Total	50 889	9 199	525	202	0	8 048	49 091	95 571	49 103	6 332	850	18	879	15 597	286 304

^{*} The value of balance sheet exposures and the balance sheet equivalent of liabilities and off-balance sheet transactions prior to application of credit risk mitigation techniques

- Classification of exposures according to CRR
- A Exposures to central governments or central banks
- B Exposures to regional governments or local authorities
- C Exposures to public sector entities
- D Exposures to multilateral development banks
- E Exposures to international organisations
- Exposures to institutions
- G Exposures to corporates
- H Retail exposures
- I Exposures secured by mortgages on immovable property
- J Exposures in default
- K Exposures associated with particularly high risk
- Exposures in the form of covered bonds non-occuring in the Bank Group and / or the Bank
- M Items representing securitisation positions non-occuring in the Bank Group and / or the Bank
- N Exposures to institutions and corporates with short-term credit rating non-occuring in the Bank Group and / or the Bank
- O Exposures in the form of units or shares in collective investment undertakings ('ClUs')

The credit concentration risk is monitored also with respect to industry sectors determined based on the PCBA (Polish Classification of Business Activity), maintained for institutional clients. In the case of industry sectors with higher risk levels, the Bank applies limits restricting its exposure to those sectors. As at 31 December 2016, there was no significant concentration level in any industry sector (Table 2.15).

Q - Other items

*** Exposures managed at the Head Office level including the following, among other items: cash, tangible fixed assets, intangible assets, assets from securities valuation,



Table 2.15 Exposure structure by industry*

The Bank Group	2016														
Type of client / branch	No. of exp	osure class	**												Total
Type of client / branch	Α	В	С	D	E	F	G	Н	ı	J	K	0	Р	Q	Total
Corporate clients, including:	0	6 305	478	0	0	0	48 888	9 336	1 622	4 025	0	0	0	0	70 653
Industrial processing	0	0	0	0	0	0	2 342	319	78	113	0	0	0	0	2 852
Wholesale and retail trade, repair of motor vehicles, motorcycles	0	0	0	0	0	0	632	57	7	40	0	0	0	0	736
Activities related to real estate management	0	2	0	0	0	0	4	13	1	0	0	0	0	0	21
Construction	0	0	0	0	0	0	410	498	48	64	0	0	0	0	1 020
Public administration and national defence, obligatory social security	0	0	4	0	0	0	440	40	18	18	0	0	0	0	520
Generation and supply of power, gas, water steam, hot water and air for air-conditioning systems	0	0	0	0	0	0	10 090	1 193	198	722	0	0	0	0	12 203
Other exposures	0	6 303	473	0	0	0	34 969	7 215	1 272	3 068	0	0	0	0	53 301
Banks	0	0	0	48	0	11 565	0	0	0	0	0	0	0	0	11 613
Governments	49 085	0	0	0	0	0	0	0	0	0	0	0	0	0	49 085
Individuals	0	0	0	0	0	0	1 634	76 262	42 277	1 939	0	0	0	0	122 112
Other***	0	2 827	47	154	0	0	3 414	118	-48	76	690	0	2 654	14 407	24 337
Total (PKO BP SA)	49 085	9 132	525	202	0	11 565	53 936	85 715	43 850	6 040	690	0	2 654	14 407	277 800
Group subsidiaries	1 804	68	0	0	0	7 310	8 395	9 859	5 261	248	0	18	0	1 174	34 135
Adjustments and exclusions	0	0	0	0	0	-10 827	-13 239	-3	-8	44	160	0	-1 775	17	-25 631
Total	50 889	9 199	525	202	0	8 048	49 091	95 571	49 103	6 332	850	18	879	15 597	286 304

^{*} The value of balance sheet exposures and the balance sheet equivalent of liabilities and off-balance sheet transactions prior to application of credit risk mitigation

- ** Classification of exposures according to CRR
- A Exposures to central governments or central banks
- B Exposures to regional governments or local authorities
- C Exposures to public sector entities
- D Exposures to multilateral development banks
- E Exposures to international organisations
- Exposures to institutions
- G Exposures to corporates
- H Retail exposures
- I Exposures secured by mortgages on immovable property
- Exposures in default
- K Exposures associated with particularly high risk
- L Exposures in the form of covered bonds non-occuring in the Bank Group and / or the Bank
- M Items representing securitisation positions non-occuring in the Bank Group and / or the Bank
- N Exposures to institutions and corporates with short-term credit rating non-occuring in the Bank Group and/or the Bank
- O Exposures in the form of units or shares in collective investment undertakings ('CIUs')
- P Equity exposures

Table 2.16 SME exposure structure* by industry

The Bank Group		
Type of client / branch	2016	2015
Industrial processing	546	552
Wholesale and retail trade, repair of motor vehicles, including motorcycles	91	85
Real estate activities	19	12
Construction	714	700
Public administration and national defence, obligatory social security	66	68
Generation and supply of power, gas, water steam, hot water and air for air-conditioning systems	2 220	2 016
Other exposures	14 933	14 564
Total (PKO BP SA)	18 589	17 997
Other Group companies	136	123
Adjustments and exclusions	0	0
Total	18 725	18 120

Q - Other items
*** Exposures managed at the Head Office level including the following, among other items: securities, other assets



Table 2.17 Exposure structure* by original maturity

	2016								
The Bank Group	PKO Bank Po	lski SA					Other	Adjustments	
Exposure class	0 - 1 Month	1 - 3 Months	3 - 12 Months	1 - 5 Years	Over 5 years	Other**	Group companies	and exclusions	Total
Exposures to central governments or central banks	10 407	-650	0	0	0	39 327	1 804	0	50 889
Exposures to regional governments or local authorities	4	2	14	120	239	8 753	68	0	9 199
Exposures to public sector entities	5	0	1	19	43	457	0	0	525
Exposures to multilateral development banks	1	0	15	0	32	154	0	0	202
Exposures to international organisations	0	0	0	0	0	0	0	0	0
Exposures to institutions	111	4 278	4 322	1	2 715	137	7 310	-10 827	8 048
Exposures to corporates	1 044	801	192	15 576	15 895	20 428	8 395	-13 239	49 091
Retail exposures	5	-184	5	9 890	8 809	67 191	9 859	-3	95 571
Exposures secured by mortgages on immovable property	0	-48	0	81	34	43 784	5 261	-8	49 103
Exposures in default	24	0	35	1 124	873	3 983	248	44	6 332
Exposures associated with particularly high risk	0	671	0	0	0	19	0	160	850
Exposures in the form of covered bonds	0	0	0	0	0	0	0	0	0
Items representing securitisation positions	0	0	0	0	0	0	0	0	0
Exposures to institutions and corporates with a short-term credit assessment	0	0	0	0	0	0	0	0	0
Exposures in the form of units or shares in collective investment undertakings ('CIUs')	0	0	0	0	0	0	18	0	18
Equity exposures	0	2 639	0	0	0	15	0	-1 775	879
Other items	6 048	8 359	0	0	0	0	1 174	17	15 597
Total	17 649	15 869	4 584	26 810	28 640	184 249	34 135	-25 631	286 304

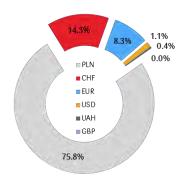
^{*} The value of balance sheet exposures and balance sheet equivalents of liabilities and off-balance sheet transactions prior to the application of credit risk mitigation techniques

Exposures with a maturity date of over 1 year constitute a significant portion (59.3%) of the Bank's total exposures, with 30.6% of exposures having a maturity date higher than 5 years (Table 2.17).

As at 31 December 2016, the share of exposures in convertible currencies other than PLN in the Group's total portfolio amounted to 24.1% - a 1.0 p.p. drop in relation to 31 December 2015.

The biggest portion of the Group's currency exposure is the exposure in CHF pertaining to the Bank's credit portfolio. The share of credits denominated in CHF constituted 59% of total currency portfolio of the Group. In the case of the companies of the Bank Group, the situation is different, i.e. currency portfolio of the PKO Leasing SA Group is dominated by EUR, while exposures in the Group of KREDOBANK SA and Finansowa Kompania "Prywatne Inwestycje" Sp. z o.o. (i.e. entities pursuing activity in the territory of Ukraine) are dominated by USD.

Chart 2.1 Currency structure of the credit portfolio the Bank Group



2.7. Interest rate risk

2.7.1. Introduction

Interest rate risk is the risk of loss on the Bank Group's balance sheet and off-balance sheet items sensitive to interest rate changes, resulting from unfavourable interest rate changes on the market. Interest rate risk is actively managed by the Bank that results from both positions which belong to trading book and positions which are not the part of trading book.

The purpose of interest rate risk management is to mitigate the possible losses due to changes in the market interest rates to an acceptable level through appropriate shaping of the structure of the balance sheet and off-balance sheet items.

2.7.2. Interest rate risk identification, measurement and assessment

Interest rate risk identification consists in identification of its current and potential sources and estimation of significance of its potential impact on the Bank's and the Bank Group's activities.

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

The interest income sensitivity is a measure defining a change in the interest income resulting from stepwise interest rate changes. The measure takes into account the different repricing dates of individual interest items in each of selected time horizons.

Economic value sensitivity measure (Basis Point Value - BPV) is defined as fair value change of the financial instrument caused by parallel upward movement of the profitability curves by one basis point.

The value at risk (VaR) is the potential loss resulting from maintained structure of balance sheet and off-balance sheet items and changes in interest rates or as potential value of loss on the maintained currency positions due to changes in interest rates or foreign exchange rates,

^{**} Includes items with unspecified maturity (e.g. fixed assets, stocks)



with an assumed probability level and taking account of a correlation between risk factors.

VaR for market risk management purposes is calculated with the 99% confidence level and 10-day holding. For interest rate risk management purposes, the following, among other things, are applied: the VaR value determined for individual financial instruments and for the Bank's portfolios, and by individual types of business activity of the Bank

Shocks analysis (stress tests, crash tests, reverse stress tests) are used to assess potential losses resulting from the maintained structure of the balance sheet and off-balance sheet items where market situation occurs that is not described in a standard manner using the statistical measures. The shocks analysis where launched in the form of reverse stress tests in regard to interest rate risk in the Bank in 2016

The following scenarios are applied at the Bank:

- hypothetical stress tests within which fluctuations in interest rates are assumed arbitrarily: parallel shift of the interest rate curves for the individual currencies by ±50 bps, by ±100 bps, by ±200 bps, values over 200 bps and deflection scenarios (nonparallel peak- and twist- type deflections) of profitability curves.
- 2) historical stress tests within which fluctuations in interest rates are assumed on the basis of fluctuations in interest rates observed in the past, including: the biggest historical change, deflection of the interest rate curve, the biggest historical nonparallel movement of interest rate curves for securities and for derivatives hedging those securities,
- crash tests within which fluctuations in interest rates are assumed on the basis of fluctuations in interest rates observed in the past so as to maximise the Bank's potential loss,
- 4) reverse stress tests which the purpose is to determine such profitability curves movement scenario that results will be corresponding with given change of the Bank's balance sheet and off-balance sheet items.

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

In the process of interest rate risk measurement, in relation to credit and deposit balances with indefinite repricing, the Bank assumed the approach based on replicated interest rate profiles, while taking account of instability of balances of this products (defined on the basis of their past structure). Moreover, the Bank monitoring cyclically the impact of past due repayment of credits on interest rate risk measures.

2.7.3. Interest rate risk control

The control of interest rate risk encompasses establishing limits and thresholds concerning interest rate risk, in particular the strategic

limits of tolerance for interest rate risk adjusted to the scale and complexity of the Bank Group's activities.

2.7.4. Monitoring the interest rate risk

In 2016, interest rate risk of the Bank Group was determined mainly by the mismatch risk of repricing dates of assets and liabilities.

As at 31 December 2016 the mismatch of reassessment dates of the Bank Group in case of PLN interest rate and CHF interest rate comprised mainly the Bank's mismatch. The mismatch of interest rate repricing dates for these currencies that was generated by the other Group entities had no significant impact on the interest rate risk for the entire Group and consequently, it did not change its risk profile significantly. The mismatch of the Group's EUR and USD repricing dates comprised mainly the Bank's exposures and the mismatch of the Group entities. The mismatch of the Bank Group entities in USD reduced the mismatch of the Group in the range of 0 up to 3 months and over 5 years. In case of EUR, the mismatch of the Group entities increased the mismatch of the Group in the range of up to 1 month and over 5 years. As far as the other ranges are concerned, the mismatch of the Group entities reduced the mismatch of the Group.

The Tables 2.17 - 2.20 present the repricing gaps of the Bank and the Group as at 31 December 2016 by currencies.

Table 2.18 PLN repricing gap (in PLN million)

2016	0-1 month		3-6 months	6-12 months		-	Over 5 years	Total
PKO Bank Polski SA	inchen in the second				900.0	gearo	19°a.o	
Periodic gap	55 318	18 246	-16 392	-7 802	-12 408	-26 075	5 816	16 703
Cumulative gap	55 318	73 564	57 172	49 370	36 962	10 886	16 703	-
Group subsidiaries		•		•			•	
Periodic gap	2 037	-3 230	54	67	42	64	42	-924
Cumulative gap	2 037	-1 193	-1 138	-1 072	-1 030	-966	-924	-
Total - Periodic gap	57 355	15 016	-16 338	-7 735	-12 366	-26 011	5 859	15 779
Total - Cumulative gap	57 355	72 371	56 033	48 298	35 932	9 921	15 779	-



Table 2.19 USD repricing gap (in USD million)

2016	0-1	1-3	3-6	3-6	1-2	2-5	Over 5	Total
2016	month	months	months	months	years	years	years	Total
PKO Bank Polski SA								
Periodic gap	801	-831	-142	92	108	3	-126	-96
Cumulative gap	801	-30	-172	-80	28	31	-96	-
Group subsidiaries			-	-		-		
Periodic gap	-70	2	-17	13	67	5	3	2
Cumulative gap	-70	-68	-85	-72	-5	-1	2	-
Total - Periodic gap	731	-829	-159	105	175	8	-123	-93
Total - Cumulative gap	731	-98	-257	-153	22	30	-93	-

Table 2.20 EUR repricing gap (in EUR million)

2016	0-1	1-3	3-6	6-12	1-2	2-5	Over 5	Total
2010	month	months	months	months	years	years	years	Total
PKO Bank Polski SA								
Periodic gap	2 331	-1 186	-614	-118	-138	-843	70	-498
Cumulative gap	2 331	1 145	531	413	275	-568	-498	-
Group subsidiaries								
Periodic gap	310	286	2	2	5	7	0	613
Cumulative gap	310	596	599	600	606	613	613	-
Total - Periodic gap	2 641	-899	-611	-117	-133	-836	70	114
Total - Cumulative gap	2 641	1 741	1 130	1 013	881	44	114	-

Table 2.21 CHF repricing gap (in CHF million)

2016	0-1	1-3	3-6	6-12	1-2	2-5	Over 5	Total
2010	month	months	months	months	years	years	years	Total
PKO Bank Polski SA								
Periodic gap	116	2 962	160	-1 839	2	-325	-677	398
Cumulative gap	116	3 078	3 237	1 398	1 400	1 075	398	-
Group subsidiaries								
Periodic gap	3	0	0	0	0	0	0	3
Cumulative gap	3	3	3	3	3	3	3	-
Total - Periodic gap	119	2 962	160	-1 839	2	-325	-677	401
Total - Cumulative gap	119	3 081	3 240	1 401	1 403	1 078	401	-



The Bank's VaR and analysis of stress test scenarios of the Bank Group's exposure to the interest rate risk as at 31 December 2016 and 31 December 2015 respectively are presented below:

Table 2.22 Sensitivity of financial assets exposed to interest rate risk

	2016		2015		
	10-day VaR	Stress-test ±200 base points*	I10-dau	Stress-test ±200 base points*	
PKO Bank Polski SA	269	2 131	272	2 040	
The Bank Group	-	2 105	-	2 025	

^{*}The table presents the absolute value of most adverse stress test among all scenarios: shift of FX rates in particular currencies by 200 BPS up and by 200 BPS down.

As at 31 December 2016, the 10-day VaR on the interest rate was PLN 268.8 million for the Bank, which accounted for ca. 0.9% of the Bank's own funds. As of 31 December 2015, the Bank's VaR was PLN 271.7 million, which accounted for approx. 1.0% of the Bank's own funds.

The results of stress tests showing changes in the market value resulting from shifts of the yield curves by individual currencies are presented in Table 2.22:

Table 2.23 Tests results* - parallel shift of interest rate curves by ± 200 base points

	Bank		Group subsidiaries Total			
Currency	2016	2015	2016	2015	2016	2015
PLN	-1 802	-1 617	-5	-9	-1 807	-1 626
EUR	-138	-195	-8	0	-146	-195
USD	-20	-24	-12	-7	-32	-31
CHF	-181	-199	0	0	-181	-200
GBP	-115	-2	0	0	-115	-2

^{*} Main foreign currency values have been shown in PLN equivalents

Given the nature of business activity of the other entities of the Group generating significant interest rate risk and the specific nature of the market on which they operate, the Group does not determine the consolidated VaR. The companies use their own risk measures to manage interest rate risk. The 10-day VaR measure for interest rate for main currencies is used by KREDOBANK SA, its value as at 31 December 2016 was PLN 8.9 million, while as at 31 December 2015 – ca. PLN 11.5 million.

2.7.5. Interest rate risk reporting

The Bank prepares daily, weekly, monthly and quarterly interest rate risk reports, but the quarterly reports refer also to the Bank Group. The reports contain information on interest rate risk exposure and on the risk limits utilisation. Assessment of interest rate risk for the Bank is prepared on a daily basis. The recipients of such reports are mainly ALCO, RC, the Management Board, Supervisory Board's Risk Committee and Supervisory Board.

2.7.6. Management actions related to interest rate risk

The basic interest rate management tools used in the Bank Group are as follows:

- 1) interest rate risk management procedures,
- 2) limits and threshold values by individual market risk types,
- defining characteristics and level of exposure for the interest rate risk for particular types of products,
- defining the allowed types of transactions exposed to interest rate risk.

The Group defined limits and thresholds for interest rate risk, that is among other, interest income sensitivity, economic value sensitivity as

well as limits and thresholds of losses, and limits for instruments sensitive to interest rate fluctuations.

The methods of interest rate management in the Group entities are defined by internal regulations that are implemented by companies in which the interest rate risk is significant. Such provisions are developed with consultations with the Bank and taking account of the recommendations of the Bank.

2.8. Foreign exchange risk

2.8.1. Introduction

FX risk is the risk of loss due to changes in the foreign exchange rates, generated through maintaining open currency positions in individual currencies.

The purpose of FX risk management is to mitigate possible losses resulting from changes of FX rates to an acceptable level through appropriate structuring of balance sheet and off-balance sheet items.

2.8.2. Foreign exchange risk identification, measurement and assessment

FX exchange risk identification consists in identification of both current and potential risk sources and estimation of the significance level of its potential impact on the Bank's and the Bank Group's activities.

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

Shock analysis (stress tests and crash tests, reverse stress tests) for FX risk are used to assess potential losses on taken currency positions where extraordinary market situation occurs that is not described in a standard manner using the statistical measures. The shock analysis in the form of reverse stress test for foreign exchange risk were launched in the Bank in 2016.

There are stress test analysis, crash test analysis and reverse stress test analysis applied at the Bank with the following foreign exchange rates changes scenarios:

- hypothetical scenarios within which the historical appreciation or depreciation of foreign exchange rates is assumed (by 20% and 50%),
- historical scenarios scenarios of fluctuations in exchange rates observed in the past,
- reverse stress tests exploring potential changes in the foreign exchange rates resulting in the Bank's losses at the specified level of the own funds.

2.8.3. The foreign exchange risk control

The main instruments to control FX risk for both the Bank and the Bank Group are strategic levels of the foreign exchange risk and the acceptable level of the foreign exchange risk exposure of the particular Bank's portfolios defined by limits.

The Bank Group defined limits and thresholds for FX risk, that is among others, FX positions, 10-day VaR and daily losses on the FX market.

2.8.4. Monitoring of the foreign exchange risk

In 2016, the FX risk of the Bank Group was low as it is the Bank's policy to close currency positions in the main currencies, that is EUR, USD, CHF and GBP. 10-day VaR for FX position of the Bank at the end of 2016 amounted to PLN 9.5 million, which accounted for approx. 0.03% of the Bank's own funds. The VaR and stress-test analysis in respect of the Bank's and the Bank Group's financial assets (total for all currencies) exposed to FX risk as at 31 December 2016 and 31 December 2015 respectively was as follows:



Table 2.24 Sensitivity of financial assets exposed to FX risk

	2016		2015		
	10-day VaR	Stress-test ±20%*	10-day VaR	Stress-test ±20%*	
PKO Bank Polski SA	9	78	25	62	
Group subsidiaries	-	25	-	49	

^{*} The table presents the absolute value of most adverse stress test among all scenarios: PLN appreciation by 20% and PLN depreciation by 20%

As in the case of interest rate risk, given the nature of business activity of the Bank Group entities generating significant FX risk and the specific nature of the market on which they operate, the Bank does not determine the consolidated VaR sensitivity measure. The companies use their own risk measures to manage FX risk. The 10-day VaR measure is used by KREDOBANK SA, as at 31 December 2016 its value was ca. PLN 0.35 million while as at 31 December 2015 – ca. PLN 4.8 million.

2.8.5. Reporting of the foreign exchange risk

The Bank prepares daily, weekly, monthly and quarterly FX risk reports, but the quarterly reports refer also to the Bank Group. The reports contain information on FX risk exposure and on the use of these risk limits. The recipients of such reports are mainly ALCO, RC, the Management Board, Supervisory Board's Risk Committee and Supervisory Board.

2.8.6. Management actions related to foreign exchange risk

The basic FX risk management tools used in the Bank Group are as follows:

- 1) FX risk management procedures,
- 2) limits and thresholds for FX risk,
- defining the allowed types of FX transactions and FX rates used in such transactions.

The methods of FX risk management in the Bank Group entities are defined by internal regulations implemented by companies in which FX risk is significant. Such regulations are prepared after consultation with the Bank and taking into account recommendations of the Bank.

2.9. Liquidity risk including financing risk

2.9.1. Introduction

Liquidity risk is the risk of inability of timely discharge of liabilities due to absence of liquid cash and equivalents. The lack of liquidity may result from an improper balance sheet structure, cash flows mismatch, non-payment by contractors, and sudden withdrawal of funds by the clients or other market events.

The purpose of liquidity risk management is to secure necessary means through appropriate structuring of balance sheet and off-balance sheet items to discharge the current and future (also potential) liabilities to the nature of business activity and any needs that may result from a changing market environment.

Liquidity risk management in the Bank includes:

- financing risk management, which includes the risk of loss of financing, the risk of inability of renewal of financing and loss of access to new sources of financing,
- product liquidity risk, for calculation of which, the cost of sale of liquid securities is assessed.

The Bank monitors the liquidity risk in the Bank Group. Treasury functions and liquidity risk management are centralized in selected

Group entities. Internal liquidity transfer within the Group is restricted to the level of reported need for financing and limits granted to Group companies.

The Bank Group has different sorts of the long-term, external financing sources including credits acquired from international financial institutions, bond issuances on the domestic market related to The Own Bond Issuance Project of PKO Bank Polski SA, bond issuances on the foreign market through PKO Finance AB related to Euro Medium Term Notes (EMTN) Project and bonds issued by PKO Bank Hipoteczny SA.

2.9.2. Liquidity risk identification, measurement and assessment

The liquidity risk identification consists in identification of both current and potential risk sources and estimation of the significance level of its potential impact on the Bank's and the Bank Group's activities.

The Bank Group's liquidity policy is based on maintenance of adequate level of liquidity surplus by increase in the liquid securities portfolio and stable financing sources (in particular stable deposit base). Moreover, money market instruments, including operations of the open market of the National Bank of Poland are used for liquidity risk management.

The Bank Group uses, for instance the following liquidity risk measures:

- contractual liquidity gap listing of all balance sheet items by their adjusted maturity,
- adjusted liquidity gap listing of individual balance sheet categories by their adjusted maturity,
- liquidity reserve the difference between the most liquid assets and expected and potential liabilities that mature in a given period,
- liquidity surplus a measure defining the Bank's ability to maintain liquidity for each day of the "survival horizon" period, in adverse conditions, taking into account scenarios of various severity and probability,
- stable financing to non-liquid assets ratio indicator ratio of stable deposits, own funds and stable market financing sources to loans, fixed assets and non-liquid securities,
- 6) stability measures of deposit and loan portfolio,
- early warning indicators monitored with a purpose of early detection of adverse events of probable negative impact on liquidity of the Bank or the financial sector,
- 8) liquidity stress tests.

The main goal of the stress tests performed under the liquidity risk framework is to identify and determine main factors constituting the greatest risk to the Bank's liquidity and to assess their impact on the Bank's liquidity, should they materialise.

The following scenarios are applied at the Bank:

- 1) survival horizon stress tests,
- 2) scenarios of mass withdrawal of deposits by non-financial clients,
- scenarios of sensitivity of in- and outflows to changing market conditions.
- scenarios of impact of stress tests on expected losses on mortgage portfolio,
- 5) scenarios of forecasted liquidity risk in shock conditions,
- reverse stress tests,

Results of stress tests are used in particular in the:

-) monitoring of Bank's exposure to liquidity risk,
- process of establishment of limits and threshold values set on the liquidity risk measures,



- control over liquidity maintenance for each day of the "survival horizon" period,
- 4) planning financial process in the Bank,
- determination of symptoms triggering liquidity contingency plan in the Bank.

2.9.3. The liquidity risk control

The control of the liquidity risk encompasses establishing the strategic limits of tolerance for risk, limits and thresholds that specified acceptable level of risk exposure for the Bank Group entities of the current, mid- and long-term liquidity., adjusted to the scale and complexity of both the Bank and the Bank Group.

2.9.4. Monitoring the liquidity risk

The adjusted liquidity gaps presented below include a list of matured assets, payable liabilities, and selected balance sheet items for a proper presentation of the liquidity status of the Bank and the companies of the Bank Group.

Subject to adjustment were the following:

- the core deposits (interbank market excluded) and their payability

 clients' deposits (current accounts, savings accounts and fixed term deposits) have been classified to appropriate tenors according to their stability (maintenance of an appropriate balance or revolving after payability),
- 2) the core deposits on the current accounts of non-financial entities and their maturity - overdrafts have been classified to appropriate tenors according to their possibility of revolving,
- liquid securities and their maturity liquid securities have been classified into the tenor of up to 7 days according to the possible date of their liquidation (pledging, sale).

The table below presents data concerning periodic gap and cumulative periodic gap of the Bank and of the companies of the Bank Group as at 31 December 2016 and 31 December 2015 respectively.

Table 2.25 Adjusted liquidity gap* - assets and liabilities

2017	a'vista	0-1	1-3	3-6	6-12	1-2	2-5	Over 5
2016		month	months	months	months	years	years	years
PKO Bank Polski SA								
Periodic gap	12 018	20 185	641	-223	8 593	9 101	23 850	-74 165
Cumulative gap	12 018	32 203	32 844	32 621	41 214	50 316	74 165	-
Group subsidiaries								
Periodic gap	-98	-162	-153	285	-2 596	1 800	1 089	-165
Cumulative gap	-98	-260	-413	-128	-2 724	-924	165	-
Total - Periodic gap	11 920	20 023	488	62	5 997	10 901	24 939	-74 330
Total - Cumulative gap	11 920	31 943	32 430	32 493	38 490	49 391	74 330	0

2015	a'vista	0-1	1-3	3-6	6-12	1-2	2-5	Over 5
2013	u vistu	month	months	months	months	years	years	years
PKO Bank Polski SA								
Periodic gap	14 039	16 783	53	3 643	8 518	7 597	11 794	-62 428
Cumulative gap	14 039	30 822	30 875	34 518	43 037	50 634	62 428	-
Group subsidiaries								
Periodic gap	-149	299	-384	-50	-539	542	749	-469
Cumulative gap	-149	151	-233	-283	-823	-280	469	-
Total - Periodic gap	13 890	17 083	-331	3 593	7 979	8 140	12 543	-62 897
Total - Cumulative gap	13 890	30 973	30 642	34 235	42 214	50 354	62 897	0

^{*} Set as a sum of real-terms liquidity gap of PKO Bank Polski SA and contractual liquidity gaps of the other companies of the Bank Group

In all tenors, the cumulative adjusted liquidity gap of the Bank Group showed positive values. This means a surplus of matured assets over matured liabilities.

Table 2.26 presents data concerning contractual off-balance sheet liquidity gap of derivatives of the Bank Group.



Table 2.26 Contractual off-balance sheet liquidity gap for derivatives

The Bank Group								
12016	0-1	1-3	3-6	6-12	1-2	2-5	Over 5	Total
	month	months	months	months	years	years	years	Total
Total - Periodic gap	-141	83	-110	-102	325	-82	448	421
Total - Cumulative gap	-141	-58	-168	-270	55	-27	421	-

The Bank Group								
12015	0-1	1-3	3-6	6-12	1-2	2-5	Over 5	Total
	month	months	months	months	years	years	years	Total
Total - Periodic gap	28	241	123	133	252	109	287	1 174
Total - Cumulative gap	28	269	392	525	777	887	1 174	-

The table below presents the Bank's liquidity reserve and liquidity surplus as at 31 December 2016 and 31 December 2015:

Table 2.27 Liquidity reserve up to 1 month and liquidity surplus

PKO Bank Polski SA		
Sensitivity measure	2016	2015
Liquidity reserve up to 1 month	31 204	30 186
Liquidity surplus in 30-day horizon	13 022	14 512

The Bank maintains high and safe level of high quality unencumbered liquid assets which are the hedge in case of scenarios of extreme liquidity (liquidity surplus) accomplishment. Easy to dispose assets includes: cash (reduced by minimal balance kept at the ATM's and in the Bank's branches), funds on the Bank's nostro accounts (excepted the average reserves required level), interbank deposits located in the others banks and liquid securities.

Table 2.28 Liquidity surplus items (in PLN million)

PKO Bank Polski SA	
Cash	3 974
Nostro accounts and deposits	3 435
Treasury bills and bonds	25 172
Monetary bills	8 999
Other liquid securities	2 298

The table below represents supervisory liquidity measures as of 31 December 2016 and 31 December 2015:

Table 2.29 Additional liquidity measures

PKO Bank Polski SA							
Measure	31.12.2016	31.12.2015					
M1	24 464	18 907					
M2	1.89	1.65					
M3	11.63	9.87					
M4	1.19	1.15					

The Bank Group							
Measure	31.12.2016	31.12.2015					
LCR	136.3%	131.5%					

During the period ranging from 31 December 2015 to 31 December 2016 values of supervisory measures remained above the supervisory limits.

The structure of the Bank's funding has been described in the Financial Statement for 2016, published on the 6 March 2017 ("Liquidity Risk Management - Structure of the Bank's Sources of Financing").

2.9.5. Liquidity risk reporting

The Bank prepares daily, weekly, monthly and quarterly liquidity risk reports, but the quarterly reports refer also to the Bank Group. The reports contain information on liquidity risk exposure and on the risk limits utilisation. The recipients of such reports are mainly ALCO, RC, the Management Board, Supervisory Board's Risk Committee and the Supervisory Board.

2.9.6. Management actions related to liquidity risk

The basic liquidity risk management tools used by the Bank Group are as follows:

- 1) liquidity risk management procedures including contingency plans,
- 2) limits and threshold values for liquidity risk,
- 3) deposit, investment, derivative transactions, including structured FX transactions and security sell and buy transactions,
- 4) transactions ensuring long-term financing of credit activities.

Liquidity risk management methods in the Group's entities are defined in the internal regulations introduced by the companies for which the liquidity risk is significant.

These regulations have been developed after consultations with the Bank and after considering the recommendations of the Bank.

2.10. Price risk of equity securities and commodity price risk and other price risks

2.10.1. Introduction

The price risk of equity securities is defined as a risk of loss related to changes in prices of equity securities on the public market or stock exchange indices that is generated through open positions in the instruments that are sensitive to changes of such market parameters.

The price risk of equity securities is generated as a result of operations conducted in respect to trading (Dom Maklerski PKO Bank Polski SA), investment activities and in result of other operations in the banking activity that generate positions in equity securities.

The aim of equity securities risk management is to reduce possible losses related to changes in prices of equity securities in the public market or exchange market indices through an optimisation of positions in instruments that are sensitive to changes of such market parameters.

Commodity price risk is defined as the risk of incurring losses due to changes in commodity prices, generated by maintaining open positions on particular types of goods.



The aim of commodity price risk management is to reduce potential losses resulting from changes in commodity prices to the acceptable level by influencing the structure of balance sheet and off-balance sheet commodity positions.

2.10.2. Identification, measurement and assessment of price risk of equity securities and commodity price risk and other price risks

The price risk equity securities identification consists in identification of both current and potential risk sources and estimation of the significance level of its potential impact on the Bank's and the Bank Group's activities.

The impact of the price risk of equity securities and other price risk on the Bank's financial conditions were defined as insignificant. Positions in equity securities and indexed instruments reduced and their significant increase is not expected.

The Bank Group's banking book equity exposures are qualified into following groups depending on their type and purpose of their acquisition:

- equity exposures in subsidiary companies not subject to prudential consolidation— said entities comprise companies providing services supplementary to the Bank's basic financial offer related to insurance services and close-end investment funds established for optimization of sales and managerial activities related to supervised funds,
- Bank's exposures towards financial and financial market infrastructure companies – investments in joint-ventures, associated and minority-interest companies, providing financial services or services supporting the development of financial markets.
- Bank's exposure to The 2020 European Fund for Energy, Climate Change and Infrastructure, established with the purpose of realization of investment projects in Poland and other European Union countries,
- 4) other exposures investments which are mostly intended for sale, made by the Bank and its subsidiaries subject to prudential consolidation. This group includes i.a. the Bank's entities for sale to NEPTUN – fizan or fund subsidiary, assets acquired during debt restructuring process and collaterals taken over by the Bank,
- 5) participation units in investment funds covering investments of PKO Towarzystwo Funduszy Inwestycyjnych SA (PKO TFI SA) in participation units of the new investment funds under its management. Assets are acquired with the purpose of providing financing required for establishment of said investment funds.

Table 2.30 Capital exposures - banking book

	The Bank Group						
	2016		2015				
	Carrying amount	Fair value*	Carrying amount	Fair value*			
Total	1 732	1 727	1 734	1 753			
Investments valued under the equity method**	947	942	958	977			
Including: shares in entities listed on regulated market	26	20	24	26			
Shares in other entities***	326	326	174	174			
Equity securities	142	143	389	389			
Shares in entities listed on regulated market	34	34	57	57			
Shares in entities not listed on regulated market****	108	109	332	332			
Participation units in PKO TFI SA investment funds	18	18	16	16			
Participation units in collective investment undertakings of PKO Banku Polski SA****	298	298	197	197			

^{*} Assessed fair value of shares listed on regular market - market value

***** This item presents participation units in entities other than the Bank's subsidiaries, recognized as "investments accounted for using the equity method"

2.10.3. Control of price risk of equity securities and commodity price risk and other price risks

The control of price risk of equity securities encompasses establishing limits and thresholds connected with price risk of equity securities adjusted to the scale and complexity of both the Bank and the Bank Group activities.

The control of commodity price risk encompasses establishing limits and thresholds imposed on this risk adjusted to the scale and complexity of both the Bank and the Bank Group activities.

2.10.4. Monitoring of price risk of equity securities and commodity price risk and other price risks

Stocks and shares in other entities are subject to periodic valuation.

Investments in subsidiaries not subject to prudential consolidation, joint-ventures and associates are valued using equity method, unless categorized as fixed assets for sale.

At the end of each reporting period, an assessment of impairment for investments in subsidiaries not subject to prudential consolidation, joint-ventures and associates is made. If impairment is identified, an assessment is made of the higher of the investment's value in use and fair value less selling expenses (impairment test). The forecast of the value in use is assessed using the discounted cash flow method under the assumption that the stocks or shares will continue to be held. Forecasts concerning cash flows are developed on the basis of financial plans of entities using discount rate determined for the Bank's capital contributions or adjusted to the specific nature of business activity of individual companies.

Additionally, impairment tests are performed at the end of every year regardless of whether impairment conditions exist for those investments.

Investments in subsidiaries not subject to prudential consolidation, joint-ventures and associated companies recognized as fixed assets for sale are presented as carrying amount or goodwill net cost of sales – depending on which one is smaller.

Stocks and shares in other companies are valued:

- at fair value, based on the market value for those stocks, for which there is an active market - according to an external valuation or based on the purchase price offered - for companies for which no active market is present,
- at acquisition cost reduced by an impairment allowance for stocks and shares which fair value cannot be assessed.

Changes in the value of stocks and shares are recognized in the revaluation fund, except for impairments recognized in the profit and loss account.

Participation units in investment funds as well as creation units in joint financing institutions are priced according to fair value and recognized in the revaluation fund.

In 2016, the Bank Group (under prudential consolidation) realised a cumulative gross profit on the sale of securities representing banking book equity exposures in the amount of PLN 418.4 million. The aforementioned value includes result revealed in the income statement that amount to 417.6 million which is related to settlement of participation of PKO Bank Polski SA in transaction of acquisition Vis Europe Limited by Visa Inc. The Bank Group's total unrealised cumulative gross profit resulting from revaluation of the banking book equity exposures (shown i.a in the revaluation reserve) amounted to PLN 147.9 million as of the end of 2016. The aforementioned value includes unrealised profit of the Group in the amount of PLN 178.5 million related to revaluation to fair value of the purchase price of the shares of one of the companies.

^{**} Equity investments in subsidiaries not subject to prudential consolidation, joint-ventures and associated entities

 $^{^{\}star\star\star}$ This line includes also equity investments in entities revealed as fixed assets items for sale

^{****} This line includes also shares that are not listed on the regular market of public companies *



In 2016, PKO Polish Bank SA received a dividend related to shares held and shares representing equity exposures in the total gross amount of 20.2 million.

2.10.5. Reporting price risk of equity securities and commodity price risk and other price risks

The Bank prepares monthly and quarterly reports including price risk of equity securities and commodity prices. The reports contain information on exposure and the use of these risk limits. The recipients of such reports are mainly ALCO, RC, the Management Board, Supervisory Board's Risk Committee and Supervisory Board.

2.10.6. Management actions related to price risk of equity securities and commodity price risk and other price risks

The equity securities risk is managed through limits imposed on the activities of Brokerage House of PKO Bank Polski SA and own investments portfolio, monitoring of their use and reporting risk levels.

Commodity price risk is managed by imposing limits on the Treasury Department's activity, monitoring their use and reporting the risk level.

2.11. Derivatives risk management

2.11.1. Introduction

The derivatives risk is the risk of loss as a result of the Bank's position in financial instruments that satisfy all of the following conditions:

- the value of an instrument changes together with a change of underlying instrument,
- they do not require any net initial investments or they require only minor net initial investments, as compared to other types of agreements that respond to changes of market conditions in a similar way,
- 3) their settlement will take place in the future.

The derivatives risk management process is integrated in the Bank with the management of interest rate risk, foreign exchange risk, liquidity risk and credit risk, but due to the specific nature of derivatives, it is subject to particular monitoring defined in the Bank's internal regulations.

Within the scope of its activities the Bank Group uses various types of financial derivatives for the purposes of management of the risks related to the activities performed.

As of 31st December 2016, PKO Leasing SA and PKO Bank Hipoteczny were the only Bank Group companies (except for the Bank) utilizing derivatives as part of their (core-business related) risk management activities.

The majority of derivatives used by the Bank Group for the purpose of risk management and offered to clients are: IRS, FRA, FX Swap, CIRS, FX Forward, Options.

2.11.2. Derivatives risk identification and measurement

Derivatives risk identification consists in identification of both current and potential risk sources and estimation of the significance level of its potential impact on the Bank's and the Bank Group's activities.

Derivatives risk is measured i.a. with a Value at Risk model (VaR) and analysis of stress tests including changes in market prices of underlying instruments as well as changes of price volatility.

Derivatives risk for the Bank Group entities is measured on the basis of the information regarding the entities' position related to particular derivatives.

2.11.3. Derivatives risk control

The control of derivatives risk is conducted by imposing limits on derivatives and monitoring its utilization. Both greeks coefficients and the level of involvement in selected types of derivatives depended on limitation.

2.11.4. Derivatives risk monitoring

Monitoring of derivatives risk is performed within the framework of monitoring of other types of financial risk as well as credit risk. The Bank pays particular attention to the monitoring of financial risk related to currency options portfolio as well as credit risk of its customers, related to the amount due to the Bank related to derivatives.

2.11.5. Derivatives risk reporting

The Bank prepares daily, weekly, monthly and quarterly reports on credit exposures related to derivatives risk, and the quarterly reports refer to the whole Bank Group. The reports comprise information on the risk exposure of derivatives and information on the use of risk limits.

2.11.6. Management actions related to derivatives

The main tools used in derivative risk management are as follows:

- 1) written procedures for derivative risk management,
- limits and thresholds set for the risk related to derivative instruments,
- 3) master agreements specifying, i.a. settlement mechanisms.

Master agreements concluded by the Bank with the major business partners based on the standards developed by the Polish Banks Association (domestic banks) and ISDA (foreign banks and credit institutions), which allow offsetting mutual liabilities, both due (mitigation of settlement risk) and not yet due (mitigation of presettlement risk), are particularly important for mitigating the risk associated with derivative instruments.

Additional collateral for exposures, resulting from derivative instruments are collateral deposits escrowed by counterparties as a part of CSA agreement (Credit Support Annex).

Methods of derivative risk management in the Bank Group subsidiaries are defined by internal regulations implemented by these entities which take up a position in derivative instruments or plan to take positions in such instruments. These regulations are developed after consultation with the Bank and take into account the recommendations issued by the Bank for the Bank Group entities.

Positions taken by the other Bank Group entities in particular derivative instruments are determined using similar methods to those used for positions taken by the Bank in such derivative instruments, taking into account the specific nature of the business conducted by the Bank Group entities.

2.12. Operational risk

2.12.1. Introduction

Operational risk is defined as the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events; includes legal risk and does not include reputation risk and business risk.

The purpose of operational risk management is to increase the security of Bank's operational activity through improvement of effective, adjusted to the profile and volume of activity, mechanisms of identification, assessment and measurement, control, as well as monitoring, mitigation and reporting on operational risk.



Operational risk profile of the Bank and of the Bank Group is defined as the volume and structure of exposure to operational risk, determined by strategic limits for operational risk tolerance.

The Bank's internal regulations clearly define the distribution of duties and competencies in the area of operational risk management. In accordance with these regulations, all issues related to operational risk management are supervised by the Management Board that:

- 1) sets the objectives of operational risk management,
- 2) shapes operational risk management strategy,
- adopts resolutions on operational risk management principles, strategic limits for operational risk tolerance and the extensions and changes for the AMA
- accepts the value of the management adjustment of the own funds requirement for operational risk according to the AMA,
- 5) accepts reports and information related to operational risk.

The Bank Group entities manage operational risk in accordance with the principles of managing operational risk of the Bank, taking into account the scope and type of connections between entities belonging to the Bank Group as well as the specific nature and scale of activity these entities.

2.12.2. Operational risk identification, measurement and assessment

2.12.2.1. Operational risk identification, method of measurement and assessment

For the purpose of operational risk management, the Bank gathers internal and external data on operational events together with causes and results of their occurrence, data on business environment factors, results of self-assessment connected, data on Key Risk Indicators (KRI) and data on the quality of functional internal control.

Operational risk self-assessment includes identification and assessment of operational risk arising in the products, processes and IT applications of the Bank, as well as resulting from organisational changes. Self-assessment is conducted periodically before the introduction of new or changed products, processes and applications of the Bank by using collected data on operational events and information obtained during the measurement, monitoring, reporting of this risk (including internal audit and audit security reports) or through cooperation with the Bank Group's entities.

Operational risk measurement in the Bank is aimed to define the scale of threats related to the operational risk by using defined risk measures. Operational risk measurement includes:

- 1) calculation of KRI,
- calculation of own funds requirement for operational risk under the BIA approach in activities of the Bank's branch in the Federal Republic of Germany and AMA with respect to the other activity of the Bank,
- 3) stress tests,
- 4) calculation of internal capital for the Bank Group.

The BIA requirement regarding operations conducted by the Bank, falling under BIA approach, is calculated in accordance with the CRR (Part III, Title III) and applies only to the part of the Bank's activities, for which the PFSA's consent for a joint AMA and BIA calculation of own funds requirements related to operational risk has been granted.

The Bank assesses parameters of distributions used for measurement of the operational risk on the basis of internal and external information on operational events. The estimating algorithm of these parameters takes account of existing thresholds of losses for which information on operational events are gathered. The value of a threshold for internal events was established by taking into account the economic costs related to gathering information on operational events and their addedvalue for operational risk measurement. Used external data on operational events come for instance from the consortium database

(called ZORO) maintained by the Polish Bank Association. Moreover, the operational risk measurements include macroeconomic data and data related to the volume of the Bank's operational and business activities.

Own funds requirement for operational risk according to the AMA corresponds to the VaR in respect to operational risk plus the result of scenario analysis and corrected by the value of adjustments related to changes in quality of internal functional audit and management adjustment according to the following formula:

AMA = (LDA+SbAMA) *(1+IC) +MA

where:

AMA - own funds requirement for operational risk

according to the AMA,

LDA - value at risk,

SbAMA - scenario based AMA,

IC - adjustment related to changes in quality of

internal control,

MA - management adjustment.

The AMA captures potentially severe tail events, achieving a soundness standard comparable to a 99,9% confidence interval over a one year period.

Calculations of value at risk are made under a loss distribution approach (LDA) framework. On the basis of historical internal and external information on operational events and about business environment, this approach measures potential loss that is not to be exceeded within coming year.

The purpose of the scenario based AMA is to extend the AMA calculation to capture operational risk related to operational events that have not been covered with the LDA.

Adjustment related to the changes in quality of internal control allows to assess the potential deterioration of the quality of Bank's internal control that would result in an increase of the frequency or severity of operational risk events.

The purpose of management adjustment is to cover the requirement of extraordinary events in the AMA calculation, if due to their specific nature such events were not included into LDA or AMA calculation.

Risk measurement includes stress tests referring to potential consequences of extremely unfavourable, yet possible, scenarios. Its aim is to define the sensitivity of the Bank's results to the fulfilment of a test scenario and to determine if the AMA covers the total amount of losses resulting from the accomplishment of such scenarios.

The previous results of stress tests do not challenge the sufficient conservatism of the AMA.

Moreover, the Bank performs backtesting of the AMA calculation. Backtest results confirm the sufficient conservatism of the AMA.

Furthermore, the AMA is validated by an independent organisational unit of the Head Office (Model Validation Department). The validation is aimed to ensure that the operational risk measurement and management systems in the Bank with their essential components comply with the assumptions. Validation include the verification of accuracy, objectivity, correctness and conservatism of the AMA model applied by the Bank.

2.12.2.2. The Bank's insurance policy

To minimize negative financial impact of operational events, PKO Bank Polski SA has an insurance policy that requires that a continuing and effective insurance cover is granted in return for an acceptable cost.

PKO Bank Polski SA endeavours to apply uniform insurance principles to the whole Bank Group, in order to optimise the scope and costs of the insurance cover using of effects of scale.



The Bank's insurance programme is regularly monitored in order to identify needs of essential changes.

2.12.2.3. Impact of insurance

While calculating the own funds requirement for operational risk, the Bank includes the impact of insurance.

The insurance policies used by the Bank to reduce own funds requirement for operational risk, fulfill the criteria defined in Article 323 of CRR and also comply with internal regulations regarding calculation of own funds requirement reduction due to insurance. The Bank's insurance policies refer mainly to all risk property insurance and the Bank's civil liability insurance.

While calculating deductions related to purchased insurance policies, the Bank takes account of deductibles.

In compliance with Article 323 of CRR the reduction in own funds requirements from the recognition of insurances shall not exceed the maximum value equal to 20% of the own funds requirement for operational risk before the recognition of risk mitigation techniques are taken into account.

2.12.3. Operational risk control

The objective of operational risk management is striving for maintaining the level of operational risk of the Bank and the Bank Group at fixed level.

Control of operational risk includes setting tailored to the scale and complexity of the Bank's and the Bank Group's activities limits on operational risk, in particular strategic tolerance limits for operational risk, losses limits, KRI enclosing thresholds and critical values .

Strategic tolerance limits for operational risk are specified by the Management Board and approved by the Supervisory Board. Additionally, the Management Board defines the levels of utilization of the strategic tolerance limits for operational risk for both the Bank and the Bank Group, which, when exceeded, serve as a signal for potential measures aimed at ensuring that strategic limits for operational risk are not exceeded.

A system of local limits assigned to selected organizational or functional units of the Bank or its Head Office functions in the Bank, which defines the maximum operational risk allocated to said selected organizational or functional units of the Bank or its Head Office, ensuring that the strategic limits for operational risk are not exceeded.

2.12.4. Monitoring of operational risk

The purpose of operational risk monitoring is observation of deviation from benchmarks assumed (in particular limits, thresholds, measurements from the previous period, recommendations) in order to diagnose areas requiring management actions.

The Bank regularly monitors in particular:

- utilisation of strategic limits for the Bank and the Bank Group and of risk tolerance and operational risk limits for the Bank,
- 2) operational events and their consequences,
- 3) results of operational risk self assessment.
- 4) own funds requirement for operational risk according to the BIA in respect to the Bank's foreign branch in the Federal Republic of Germany and according to AMA for the remaining activities of the Bank and own funds requirement for operational risk according to the BIA (basic indicator approach) for other Bank Group's entities,
- 5) results of stress tests including reverse stress tests,
- 6) KRI values against threshold and critical values,
- the level of risk for the Bank and the Bank Group, areas and operational risk management tools in the Bank,

- 8) efficiency and timeliness of the management activities undertaken in relation to operational risk reduction or transfer,
- management activities undertaken because of increased or high level of operational risk and their effectiveness in reducing the operational risk level.

2.12.5. Operational risk reporting

Reporting on operational risk is carried out for the purpose of senior management, ORC, RC, the Management Board and Supervisory Board monthly and quarterly.

The recipients of monthly information are senior management, the Head Office units and specialized organizational units responsible for systemic operational risk management. Monthly information includes in particular information about:

- 1) the number and the effects of the operational events,
- 2) the structure of operational events,
- 3) KRI values.

The recipients of quarterly information are ORC, RC, the Management Board and Supervisory Board. Quarterly information includes in particular information about:

- the Bank's operational risk profile result from identification process and product danger assessment, the Bank's processes and application, LDA and KRI measurement,
- the operational risk level of the Bank, areas and instruments to manage the risk,
- 3) the results of operational risk measurement and monitoring,
- 4) the activities undertaken in order to constrain operational risk and assessment of effectiveness of undertaken activities in order to reduce operational risk level.

The scope of information varies and is adjusted to the scope of responsibility of individual recipients of the information.

2.12.6. Management actions related to operational risk

Operational risk management process is conducted at the Bank's level as well as at the particular areas of systemic operational risk management.

Systemic operational risk management consists in developing solutions, which enable the Bank to exercise control in order to achieve its objectives. Main areas of systemic operational risk management are:

- 1) security,
- 2) IT,
- 3) settlements,
- 4) human resources,
- 5) business processes,
- 6) administration,
- support (in particular: insurance management, outsourcing, creation and implementation of internal operational risk models and systems of identification, assessment, monitoring and limiting of operational risk, etc.).

Current operational risk management is carried out by each employee of the Bank Group in the scope of their duties and obligations and consist in preventing the materialization of operational events arising in servicing products, conducting processes, using IT applications and reacting on operational events occurrence. Reacting includes:

- identifying operational events and explaining reasons for their occurrence,
- 2) defining consequences of operational events,
- 3) recording data on operational risk events and their consequences,
- monitoring information on operational events and their consequences,



- 5) minimizing the negative consequences of operational risk events,
- 6) implementation of corrective and preventive actions.

A significant role in operational risk management is performed by the Banking Risk Division, which coordinates the identification, measurement, control, monitoring, reporting and coordinates management activities achievement in terms of operational risk in the entire Bank Group.

In 2016 a dominant influence on the operational risk profile of the Bank Group have had PKO Bank Polski SA, the PKO Leasing SA Group and the KREDOBANK SA Group. Other companies of the Bank Group, due to a considerably lower scale and specific type of their businesses, generate only limited operational risk.

Management activities are taken in the following cases:

- 1) as a response to the initiative of ORC or the Management Board,
- as a response to the initiative of Bank's organizational units responsible for managing operational risk,
- when the operational risk has exceeded the levels set out by the Management Board or the ORC.

In particular, if the operational risk level is considered as increased or high, the Bank uses the following approaches and operational risk management tools:

- risk reduction mitigating impact of risk factors or results of risk materialization by implementation or reinforcement of various operational risk management tools, such as:
 - g) control instruments (i.a. authorization, internal control, functions separation),
 - h) human resources management instruments (personnel selection, increase in qualifications of employees, motivational systems)
 - definition or verification of OCR's thresholds and critical values of KRIs,
 - j) definition and verification of operational risk level
 - k) contingency plans,
- risk transfer a transfer of responsibility for coverage of potential losses to an external party:
 - insurances,
 - m) outsourcing,
- risk avoidance resignation from a risk generating activity or elimination of a possibility that a risk factor occurs.

Operational risk management process is validated through:

- reviewing strategy and operational risk management process,
- $2) \hspace{0.5cm} \text{self-assessment of compliance with the AMA requirements,} \\$
- 3) validation of the AMA,
- 4) internal audit.

2.12.7. Incurred losses and operational risk management actions

In the 2016 events related to operational risk, excluding losses from credit process, that were disclosed in the Bank and amounted to ca. PLN 11 mio. net and PLN 21 mio. gross (Table 2.31). The most significant operational event, non-relevant to credit risk, occurred in clients, products and operational practices category – summons concerning transaction settlement. For that reason the reserve has been created. In order to avoid such events in the future and to constrain operational losses, the transaction process was standardized and atomise.

Table 2.31 Gross losses* related to disclosed events

PKO Bank Polski SA		2016	
General cathegory	Specific cathegory	Gross losses**	Net losses***
Internal frauds	Non-legitimated activities	0.79	0.00
	Thefts and frauds	2.95	2.64
Regulations of employment and work safety	Labour issues	2.37	0.35
Clients, products and operational practises	Customer service, disclosure of information about clients, responsibilities to clients	0.54	0.43
	Improper business or market practices	4.82	3.57
	Products malfunctions	0.05	0.05
Making transactions, providing and managing operational processes	Recording in the system, making, calculating and servicing transactions	0.71	0.20
	Monitoring and reporting	0.04	0.04
	Inflow and registering clients	0.14	0.14
	Managing clients' bank accounts	0.06	0.01
	Non-bank's clients (for example clearing houses)	0.25	0.20
Losses related to fixed assets	Natural disasters and other events	0.86	0.33
External frauds	Thefts and frauds	7.82	2.98
Total		21.40	10.94

* Gross losses do not include losses from operational risk related to credit risk, which are recognised as losses from credit risk and are used to calculate minimum capital requirements.

** According to the Recommendation M of the Polish Financial Supervision Authority as at 31.12.2016 gross losses include realised losses (e.g. provisions, write-downs, expenses) as well as unrealised (potential) losses. Gross losses do not include direct recoveries and recoveries from the risk transfer mechanisms.

*** Net losses as at 31.12.2016 include realised losses (e.g. provisions, write-downs, expenses).

The Bank takes systemic and current management actions in order to limit losses from operational risk. Current actions include direct reacting on identified risks, eliminating irregularities when it is possible as well as recovering financial losses. Systemic actions consist of, among others, securing IT systems, improving transaction authorization methods, non-execution of transfers to accounts identified as associated with criminal activity, processes improvement, functional control optimization, trainings, risk transfer (insurances, outsourcing).

The Bank continues to raise the security of IT systems, in particular in the area of applications used by the Bank's customers – related to i.a. active combating phishing websites impersonating the Bank's services, active following the development of malware attacking the Bank's clients, development of detection mechanisms identifying infected computers of clients and rule improvement, extension the range of electronic transactions monitoring. In 2016 there were implemented on the log in process to the Bank's internet services i.a. anti-phishing image, the functional improvement on conducting activities were held, consist in defining limits on payments advised by online banking and an opportunity to self-manage of www services level by clients. In order to constrain the risk connected with using cards in the Internet there was launched a 3D-Secure service in 2016 as mandatory authorization of online transactions method handled by payment cards (service was available for clients as facultative so far). The remaining card' products will be enclosed to the aforementioned service up to 2q2017.

To increase cyberspace security the Bank cooperates with Microsoft in its Enterprise Customers Cyber Threat Intelligence Program (ECCTIP) - PKO Bank Polski SA, as a first bank in Europe, started to exchange information regarding potential threats.

Within activities to prevent from external frauds, the instrument to verify authenticity of the public documents was improved, which is IDs, administration documents and monetary sign as well as to remain the aforementioned information. The purpose of this initiative is to increase the Bank's employees awareness in terms of coverage applied and the ways of authenticity of the public documents verification. The application of subject instrument will constrain risk connected with an opportunity to processing inauthentic IDs, administration documents and monetary signs in the Bank. Used multimedia solutions contain updated public documentation base, which are accepted at the Bank and are current support for the Bank's employees.

The Bank informs its clients on the safe ways of using its e-banking channels, but it's the users' actions that guarantee the safety of the iPKO system. In 2016 achieved the third stage of an information campaign towards iPKO users, which started in 2015, aimed at



informing its users, in a systematic and effective way, about current internet threats as well as basic rules of safe e-banking usage.

Additionally, the representatives of PKO Bank Polski SA are involved in activities undertaken within Banking Cybersecurity Centre (BCC) project, which acting under The Polish Bank Association. The purpose of BCC is realization of complex and long-term oriented operations placed on several levels: inner-sector and inter-sector (i.a. cooperation with telecommunication companies), national (cooperation with state administration, law enforcement) and international aimed at increasing the level of security of mobile banking and preparation of tools (structures, procedures, mechanisms of information exchange) for managing emergency situations (eg. in the event of a massive cyberattack on the banking sector.

2.13. Compliance and conduct risks

2.13.1. Introduction

Compliance risk is the risk of incurring legal sanctions or occurrence of financial losses or a loss of reputation as a result of failure on the part of the Bank Group, the Group's employees or entities operating on its behalf to comply with legal regulations, internal regulations and the standards of procedure adopted by the Bank, including the market standards.

Conduct risk gather as the risk of losses arising on the side of:

- 1) the Bank's client,
- 2) the Bank, including its credibility,
- 3) the financial markets in the scope of credibility, as a result of improper action (also accidental) or the Bank abandonment, its employees or related entities in the range of offering the purchasing and supplying financial services.

The objective of the compliance risk and conduct risk management is to:

- preserve the Group's perception as an institution acting in accordance with the law and accepted standards of conduct and reliable, fair and honest, among shareholders, customers, employees, business partners and other market participants,
- prevent from the occurrence of cases of improper application of the provisions of the law, internal regulations and standards adopted by the Bank, including ethical standards,
- 3) prevent the risk of financial losses on the side of the Bank's clients, which may result from improper action (also accidental) and the Bank' abandonment, the Bank's employees abandonment or related entities in the range of offering the purchasing and supplying financial services.

2.13.2. Compliance and conduct risks identification and assessment

To identify the compliance risk and the conduct risk, information on cases of non-compliance and the reasons for their occurrence, including information as a result of an internal audit, an internal control and external controls are used.

Identification and assessment of compliance risk and conduct risk are based mainly on:

- 1) estimation of the severity of possible cases of non-compliance,
- 2) results of operational risk self-assessment,
- results of the adequacy review and assessment and control mechanism effectiveness,
- the information about mismatches identified within internal control.
- assessment of the presence of additional factors of risk of compliance with the law.

Making the assessment, a character and potential losses scale are determined, and the way in which the compliance risk can be reduced or eliminated is indicated. Assessment is carried out in the form of workshops.

2.13.3. Compliance and conduct risks monitoring

Compliance risk and conduct risk are monitored by means of information provided by organisational units of the Bank and the Bank Group companies and it includes in particular:

- analysis of cases of noncompliance in the Bank Group and the banking industry, their reasons and consequences,
- assessment of changes of the key legal regulations that have impact on the Bank Group's activities,
- assessment of activities undertaken by the Bank Group within the scope of compliance risk management,
- assessment of effectiveness and adequacy of control mechanisms functioning related to limitation of compliance risk,
- 5) analysis the information about the legal status of the most significant actions, which are conducted at the Bank, connected with adapting them to common applicable regulations, the market standards accepted by the Bank and performance of the external supervision entities,
- 6) analysis the information about the operational events, safety incidents, contentious issues, including legal cases against the Bank, complains and mismatches connected with conduct risk.

2.13.4. Compliance and conduct risks reporting

Reporting information on compliance risk refers to the Bank and the companies of the Bank Group. Quarterly reports contain information provided by the Bank Group companies, also on cases of incompliance. The recipients of such reports are RC, the Management and Supervisory Boards and the Supervisory Board's Risk Committee.

The reports contain i.a. synthetic information concerning:

- 1) results of compliance risk identification and assessment,
- 2) observed cases of noncompliance,
- 3) most significant changes in the external environment,
- major activities undertaken within the scope of systemic compliance risk management and fulfilment of recommendations after external audits.

Conduct risk reporting is realised in the form of quarterly management reports for Risk Committee, the Management Board, Supervisory Board's Risk Committee and the Supervisory Board, reported with compliance risk reports and information for external supervision entities inclusively.

Synthetic information relevant to the results of conduct risk identification and assessment are displayed within compliance risk reports.

2.13.5. Management actions related to compliance and conduct risks

Compliance risk management covers specifically the following issues:

- 1) prevention of the Bank Group's involvement in illegal activities,
- propagation of the ethical standards and monitoring of their functioning,
- 3) management of conflicts of interests,
- prevention of situations, in which professional behaviour of the Group employees could seem as care for personal interests,
- 5) professional, reliable and clear formulation of the product offer and the advertising and marketing messages,



- immediate, honest and professional consideration of the clients' complaints, applications and suggestions,
- prevention from situations where offered products do not fit to client's needs,
- 8) specification of the adequate technique and form of purchase offer that fit to character of the product
- 9) sales monitoring and reliable contract accomplishment.

In 2016 the Bank Group maintained zero tolerance approach to compliance risk which means that the Bank Group focuses its activities on prevention from compliance risk materialisation.

The Bank gathers data on noncompliance events, their causes and results of their occurrence. Mentioned data are collected in central database. Information about noncompliance events is reported by Bank's organisational units and organisational units of Head Office and individually by particular employees of the Bank. Every report is examined with diligence and due care.

Respective organisational entities or appointed employees of such entities are responsible for establishment of systemic solutions within the scope of compliance of the operations of individual Bank Group's entities with applicable legislations and standards of conduct. The Compliance Department is responsible in the Bank for creation of such solutions and development of compliance risk assessment, monitoring and reporting methods that is independent and in case of issues related to compliance risk management it reports directly to the President of the Management Board.

In all entities of the Bank Group the consistent compliance risk management principles are functioning.

2.14. Business risk

2.14.1. Introduction

Business risk is the risk of losses resulting from unfavourable changes in the business environment, unfavourable decisions, improper implementation of decisions or a failure to take appropriate action in response to changes in the business environment; it specifically includes the strategic risk.

Managing the business risk is aimed at maintaining, on an acceptable level, the potential negative financial consequences resulting from: adverse changes in the business environment, making adverse decisions, improper implementation of adopted decisions or lack of appropriate actions, which would be a response to changes in the business environment.

2.14.2. Business risk measurement and assessment

Business risk identification is to recognize and determine factors both current and potential, resulting from current and planned activities of the Bank and which may significantly affect the financial position of the Bank, generating or change in the Bank's income and expense. Business risk identification involves identification and analysis of factors, which significantly affected the level of deviation of costs and revenues from their projected values.

The purpose of measurement of business risk is to determine, using existing risk measures, the scale of hazards related to the existence of business risk. Business risk measured involves:

- 1) calculation of internal capital,
- 2) conducting of stress test,
- 3) conducting of reverse stress test (annually).

Assessment of the business risk level is performed quarterly on the basis of:

1) calculated levels of strategic limits of tolerance,

- results of the annual survey conducted among Bank's senior management,
- 3) results of internal capital for business risk measurements.

2.14.3. Business risk controlling

The purpose of the business risk controlling is to strive for maintaining the level of business risk of the Bank Group at an acceptable level.

Control of business risk involves setting and periodic review of the risk controls in the form of tolerance limits on the business risk along with its thresholds and critical values, adequate to the scale and complexity of the Bank Group.

2.14.4. Business risk monitoring

Monitoring of business risk includes in particular:

- 1) strategic levels of business risk,
- 2) stress-tests results,
- 3) reverse stress-tests results,
- 4) internal capital level,
- 5) deviation of business risk realisation from its projected values,
- 6) results of the survey conducted among senior management.

2.14.5. Business risk reporting

Business risk reporting of the Bank Group is conducted quarterly. Reports on business risk are prepared for the ALCO, the RC, the Management Board and the Supervisory Board. Reports contain among others information on the internal capital level, stress-tests and reverse stress-tests results, results of an annual survey conducted among senior management, utilisation of limits of risk tolerance on business risk, business risk forecast and its backtesting, review results of business risk management process, business risk level, information on business risk related to the Bank Group entities.

2.14.6. Business risk related management actions

Management activities involve in particular:

- verification and updating of quarterly financial forecasts, including efforts to reduce business risk level in line with the approved limits
- 2) monitoring of the strategic limit of business risk tolerance.

2.15. Loss of reputation risk

2.15.1. Introduction

Loss of reputation risk is defined as a risk of reputation loss among customers, counterparties, investors, supervisors and public opinion, due to the Bank Group's business decisions, operational events, noncompliance or other events.

The purpose of loss of reputation risk management is to protect the Bank Group's reputation by reducing the negative impact of brand-related events and preventing reputation losses.

2.15.2. Loss of reputation risk identification

Identification of loss of reputation risk involves events observed both in internal processes of the Bank Group and in the external environment, in particular:

1) brand-related events,



business environment factors, that is quantitative and qualitative information, in particular embracing data on the Bank and the Bank Group's external environment, bearing valuable information of the loss of reputation risk.

Identified, negative information related to the Bank Group that influent on its reputation deterioration, is taken into account during the brandrelated information gathering process, in the form of:

- 1) information broadcasted in the media,
- 2) information disclosed by the Bank Group,
- evaluations prepared by auditing companies, analytical agencies and external supervisory institutions,
- 4) public protests and speeches.

Additionally, identification of loss of reputation risk involves analysis of the risk's sources and factors which may affect the future loss of reputation risk profile.

2.15.3. Loss of reputation risk assessment

Loss of reputation risk assessment consist in specification of an influence that have brand-related events on the Bank Group's reputation, in particular the number and severity of reputational losses. Loss of reputation risk assessment includes tone, credibility or opinion-forming and spread of information constituting the brand-related event revealed to public opinion.

2.15.4. Loss of reputation risk control

Loss of reputation risk control consist in determination risk control mechanisms adjusted to the scale and complexity of the Bank's activities, in the form of the loss of reputation risk measures and its limit values.

2.15.5. Loss of reputation risk monitoring

Monitoring of loss of reputation risk consists in regular assessment of value measurement of loss of reputation risk relative to accepted limit values. On the basis of value measurement of risk, in the form of strategic limit of tolerance for loss of reputation risk and singular loss limit, the level of loss of reputation risk is specified on the Bank's level.

2.15.6. Loss of reputation risk reporting

Reporting of information related to loss of reputation risk is done in the form of:

- semi-annual management report, prepared for the Risk Committee, the Management Board, Supervisory Board's Risk Committee and the Supervisory Board,
- information related to the current events that significantly affect the Bank Group's reputation, prepared for the Head of the CEO Division and Chairman of the Board,
- information disclosed in the financial reports for the Bank and the Bank Group as well as made available on the request of external supervisory institutions.

Semi-annual management report includes in particular information on:

- 1) scale and profile of the loss of reputation risk for the Bank Group,
- most severe reputational losses and protective measures undertaken to constrain the scale of these losses and its influent on the Bank Group's reputation,
- utilization of loss of reputation risk limits and efficiency of undertaken management activities,
- the most significant sources and factors of loss of reputation risk, which probably will be affecting the further half-year profile.

2.15.7. Loss of reputation risk related management actions

Management actions are taken on the basis on the loss of reputation risk determined level, that may embrace:

- 1) analysis of causes of occurring particular risk level,
- 2) assessment of effects of appeared level,
- preparing propositions of management actions aim at reducing loss of reputation risk level or justify lack of necessity to undertake such actions, in case of occurring incidental events of an extraordinary character.

2.16. Model risk

2.16.1. Introduction

Model risk is the risk of incurring losses as a result of making incorrect business decisions on the basis of the models operating within the Bank. The model risk in the Bank Group is managed both on the level of particular company of the Bank Group (owner of the model) and on the Bank's level, acting as a controlling entity of the Bank Group.

The objective of model risk management is to mitigate the model risk of incurring losses due to inaccurate business decisions made on the basis of functioning models, thanks to a properly defined and implemented model management process in the Bank Group. In the Bank Group, the solutions functioning in the Bank are used, with the possibility of tailoring them individually to the specific nature of each Company.

All significant models in the Bank and model of the Bank Group entities are covered by regular process of independent validation carried out by the validation PKO Bank Polski SA.

2.16.2. Model risk identification, measurement and assessment

Identification of model risk in the Bank mainly consists of:

- gathering information on used and planned to be implemented models,
- 2) cyclical determining the relevance of models.

The model risk evaluation is aimed at determining the scale of threats associated with the occurrence of the model risk. Assessment of the risk is made on the singular model level and also in the aggregated terms at the level of each entity of the Bank Group.

2.16.3. Model risk control

The purpose of model risk control is to maintain the model risk aggregated assessment at the acceptable level for the Bank Group. The model risk control consists in determination of mechanisms that diagnose model risk level and instruments that constrain this level. In particular, to diagnose model risk there are used such instruments as strategic limit of tolerance and thresholds for model risk.

2.16.4. Model risk monitoring and reporting

The purpose of model risk monitoring is to diagnose areas for management actions. Model risk monitoring contains, in particular:

- 1) updates on the level of model risk,
- assessment of strategic limit of tolerance utilization and thresholds for model risk,
- verification of the status of implementation of the proposed recommendations and the assessment of effectiveness of implementation of the actions on mitigation of model risk.



The results are cyclically reported to the RC, the Management Board, the Supervisory Board and contain a comprehensive assessment of model risk, in particular:

- information on the utilization level of strategic limit of tolerance for model risk,
- 2) information on the level of model risk (solo and consolidated),
- 3) model risk map.
- evaluation of effectiveness of the recommendations made to reduce the model risk level,
- 5) potential proposed management actions reducing the model risk.

2.16.5. Management actions concerning model risk

The purpose of management actions is to form a model risk management process and a level of this risk, in particular by determining acceptable risk levels and making decisions about the use of tools supporting model risk management.

2.17. Macroeconomic risk

2.17.1. Introduction

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

The purpose of macroeconomic risk management is to identify macroeconomic factors having a significant impact on the Bank Group's activities and taking actions to reduce the adverse impact of potential changes in the macroeconomic situation on the financial situation of the Bank Group.

2.17.2. Macroeconomic risk identification and assessment

Identification of macroeconomic risk is to determine scenarios of the potential macroeconomic changes and to determine risk factors having the greatest impact on the financial situation of the Group. Macroeconomic risk results from interaction of factors dependent and independent of the Group's activities. The Bank Group identifies the factors affecting the level of macroeconomic risk during carrying out comprehensive stress-tests.

The macroeconomic risk materialises indirectly through other risks affecting the Bank Group's operations by:

- credit losses,
- losses arising from adverse changes in market situation (changes in exchange rates, changes in interest rates),
- 3) a decrease in the liquidity of the Bank,
- 4) losses arising from the operational risk materialization,
- 5) other losses.

For the purpose of measuring the macroeconomic risk the Bank Group uses risk measures based on the results of comprehensive stress-tests, in particular:

- 1) financial result and its components,
- 2) capital adequacy measures and their components,
- 3) selected liquidity measures.

2.17.3. Macroeconomic risk control

The purpose of macroeconomic risk is striving for constraining unfavourable influence of potential macroeconomic changes on the Bank Group's financial conditions.

Control of macroeconomic risk consists in specification of acceptable risk level which is tailored to the Bank Group's activities scale, also the level of macroeconomic risk is evaluated on the results of complex stress-tests. Acceptable level of macroeconomic changes risk means situation when the stress-tests results does not indicate the necessity of undertaking the recovery activities.

2.17.4. Macroeconomic risk monitoring

A process of macroeconomic risk monitoring includes monitoring of:

- 1) macroeconomics factors to which the Bank Group is sensitive,
- 2) changes in the macroeconomic situation,
- 3) results of stress-tests,
- 4) level of macroeconomic risk.

2.17.5. Macroeconomic risk reporting

Macroeconomic risk reporting is realised in the form of:

- information on macroeconomic risk described in the quarterly report, related to stress tests subject to reporting to ALCO, RC, the Management Board and the Supervisory Board,
- 2) reports presented to ALCO and prepared in case of elevated or high level of macroeconomic risk, containing: an analysis of reasons which led to an increase in the risk level, assessment of the potential consequences of this situation, prediction of possible outcomes, proposals of:
 - n) actions aimed at reduction of the risk level,
 - o) initial assessment of effectiveness of said actions,
 - p) specialised units of the Head Office, specialised units of the Bank or divisions responsible for corrective actions,
 - q) deadlines for said actions, together with an assessment of required resources or justification for the lack of necessity for any actions to be taken.

2.17.6. Management actions concerning macroeconomic risk

Management actions in particular consist of:

- 1) internal regulations of the Bank Group,
- 2) determining acceptable levels of risk,
- proposals of actions aimed at reducing the level of risk in the event of elevated or high macroeconomic risk occurrence.

2.18. Capital risk

2.18.1. Introduction

Capital risk is defined as the risk of providing inadequate level and structure of own funds in relation to the scale of the Bank Group's activities and its risk exposure, and thus insufficient for absorption of unexpected losses taking into account both development plans and borderline cases.

The purpose of capital risk management is to ensure an adequate level and structure of own funds, in relation to the scale of the Bank Group's activities and its risk exposure, taking into account the dividend payout policy of the Bank and recommendations from the supervisory institutions, related to capital adequacy.



2.18.2. Capital risk identification and measurement

The level of capital risk is determined on the basis of capital adequacy measures, which are:

- 1) total capital ratio,
- 2) own funds and own capital ratio,
- 3) common equity Tier 1 capital ratio,
- 4) Tier 1 capital ratio,
- 5) leverage ratio.

The strategic tolerance limits and thresholds specified at the Bank's internal regulations for capital adequacy measures are established.

The level of capital risk is specified for both the Bank and the Bank Group on the basic of thresholds and strategic tolerance limits by:

- 1) low level when all capital adequacy measures exceed thresholds,
- increased level when at least one of capital adequacy measures is lower than threshold and none of them is lower than strategic tolerance limit,
- high level when at least one of capital adequacy measures is lower than strategic tolerance limit.

2.18.3. Capital risk control

The purpose of capital risk control is striving for maintaining the level of capital risk for both the Bank Group and the Bank at the low level, which is over thresholds specified for capital adequacy measures.

Control of capital risk encompasses determination of risk control mechanisms in the form of strategic tolerance limits and thresholds on capital adequacy measures, tailored to the scale and complexity of both the Bank Group's and the Bank's activities. They are specified by the Management Board and approved by the Supervisory Board.

Maintenance capital adequacy measures above thresholds provides appropriate capital buffer above supervisory minimums.

2.18.4. Capital risk monitoring and reporting

The Bank regularly monitors and reports the level of the capital adequacy measures in order to determine the degree of compliance with regulatory norms, thresholds and internal strategic limits and to identify events requiring utilisation of capital contingency measures.

Information on capital adequacy measures level is presented:

- monthly to Assets & Liabilities Committee, the Management Board, Supervisory Board's Risk Committee,
- quarterly to Assets & Liabilities Committee, the Management Board, Supervisory Board's Risk Committee and the Supervisory Board.

In quarterly information, prepared to the Management Board and the Supervisory Board, the realization level of capital plan is reported.

The level of capital adequacy measures and the level and structure of own funds of the Bank Group are presented in Chapter 3 'Own Funds' and Chapter 9 'Capital adequacy' of this Report.

2.18.5. Management actions concerning capital risk

Capital risk management is realised by:

- determination and realization of the capital objectives desirable by the Bank,
- 2) determination of internal limits on capital adequacy measures,
- level and structure of own capital and capital adequacy planning, monitoring and reporting,

- requirement allocation in terms of own funds and internal capital on particular business areas and client's segments in the Bank and particular the Bank Group's entities,
- profitability evaluation of particular business areas and client's segments.

The main capital risk management instruments are:

- 1) dividend policy,
- 2) shares issuance and share capital increase,
- 3) subordinated debt issuance,
- 4) qualification of profits of current period as own funds,
- credit risk protection instruments of selected credit receivables portfolios.
- 6) credit activities constraint, including limits on credit activities,
- 7) sales of selected financial assets and
- portfolio securitisation.

2.19. Leverage risk

2.19.1. Introduction

The leverage risk is defined as the risk resulting from vulnerability due to financial leverage or conditional leverage that may require unintended corrective actions of business plans, including emergency sale of assets which could result in losses or result in the need for valuation adjustments of other assets.

The purpose of leverage risk management is providing appropriate relation between the Common Equity Tier 1 capital volume and the sum of balance sheet assets and off-balance sheet liabilities of both the Bank and the Bank Group.

2.19.2. Leverage risk identification and assessment

Leverage means the relative size of the Bank's assets, off-balance sheet obligations and contingent obligations to pay or to deliver or to provide collateral, including obligations from received funding, made commitments, derivatives or repurchase agreements, but excluding obligations which can only be enforced during the liquidation of the Bank, compared to that institution's own funds.

The leverage risk materializes as a mismatch of scale of activities and structure of the sources of financing and insufficient equipment of the Bank Group's own funds.

For the purpose of measuring the leverage risk, bank leverage ratio is computed in accordance with Article 429 of the CRR (amended by Regulation 2015/62 UE¹³) i.e. as a measure of Tier 1 capital divided by the measure of total exposure and is expressed as a percentage rate. The Bank calculates the leverage ratio on the reporting reference date. The leverage ratio is computed both in relation to Tier 1 capital, as well as according to a temporary Tier 1 definition.

The Bank does not take into account derogations laid out in art. 499 item 2 of the CRR during leverage ratio calculation.

2.19.3. Leverage risk control

The purpose of leverage risk control is striving for maintenance leverage risk at the acceptable level for the Bank. Encompasses cyclical review of risk control mechanisms in form of tolerance limit and its threshold.

¹³ Commission Delegated Regulation (EU) 2015/62 of 10 October 2014 to supplement Regulation (EU) No 575/2013 of the European Parliament and the Council with regard to liquidity coverage requirement for Credit Institutions



2.19.4. Leverage risk monitoring

The following parameters are in particular subject to monitoring of the leverage risk:

- 1) value of the leverage ratio,
- 2) level of the leverage risk,
- 3) deviation of the leverage ratio from forecasts.

The values are monitored on a quarterly basis.

2.19.5. Leverage risk reporting

The leverage risk of the Bank Group is reported on quarterly basis. The receivers of information on the leverage risk are ALCO, RC, the Management Board, Risk Supervisory Board's Committee and the Supervisory Board. Reports include, among others, information on the value of leverage ratio, the threshold values for leverage risk and a forecast of the leverage risk.

2.19.6. Management actions covering leverage risk

Management actions related to leverage risk management are identical to management actions related to capital risk. In case of increased risk the activities are undertaken in order to leading capital adequacy measures to decreased level acting on dividend policy assumptions and supervisory recommendations in terms of capital adequacy.

2.20. Complex stress-tests

Complex stress-tests are an integral part of the PKO Bank Polski SA Group's risk management and are complementary for stress-test-specific to particular types of risks.

Complex stress-tests collectively include the following risks considered to be relevant by the Bank, including:

- 1) credit risk,
- 2) market risk,
- 3) liquidity risk,
- 4) operational risk,
- 5) business risk,
- 6) capital risk,
- 7) leverage risk.

Complex stress-tests include an analysis of the impact of changes in the environment and the functioning of the Bank on the financial position of the PKO Bank Polski SA Group, in particular on:

- 1) income statement,
- 2) statement of financial position,
- 3) own funds,
- the capital adequacy, including capital requirements, internal capital, measures of capital adequacy,
- 5) selected liquidity measures.

Complex stress-tests for the own use of the Bank Group are carried out at least once a year in the three-year horizon for the Bank Group and at least twice a year in the three-year horizon for the Bank, taking into account changes in the value and structure of the statement of financial position and income statement items (dynamic tests).

Supervisory tests are carried out at the request of the supervisory authorities in accordance with the assumptions provided by supervisory authorities.

2.21. Risk management in PKO Bank Hipoteczny SA

Risk management system adopted in PKO Bank Hipoteczny SA is consistent to the one adopted in the Bank Group. A specialized nature of the activities of a mortgage bank means that:

- credit risk management is focused mainly on the mortgage sector, retail clients' creditworthiness and mortgage lending value assessment.
- long-term mortgage bonds are a to be a default main financing source, with liquidity management competencies focused on issuance of securities on the domestic and foreign securitized debt market.

PKO Bank Hipoteczny SA expands its mortgage loans portfolio through sales by intermediaries as well as purchase of liabilities from the parent company. The mortgage portfolio forms the basis of a collateral pool securing issuance of mortgage bonds.

The mortgage lending value is a value determined by PKO Bank Hipoteczny SA in order to reflect the level of risk associated with the property accepted as a collateral securing the loans granted and is used in order to determine the maximum potential amount of the loan secured by a given immovable property or in order to determine whether a loan secured by said property can be purchased by the bank.

PKO Bank Hipoteczny SA determines the mortgage lending value on the basis of an expertise made with due diligence and caution, taking into account only those features of the property, together with investments necessary for its completion, that are permanent and which, considering a rational exploitation, will be obtained by each of the owners of said property. All assumptions, parameters and the evaluation process adopted during the expertise are documented in the expertise, together with its date and proposed estimation value. The expertise takes into account all analyses and forecasts related to the property, which affect the creditworthiness assessment, as well as general factors such as: population, unemployment rate, local zoning plans.

The mortgage bond is a personal or a bearer bond, issued by a mortgage bank, on the basis of mortgage secured loans. Mortgage bonds are issued primarily for longer terms, therefore providing a source of long-term financing for the Bank Group.

The PKO Bank Hipoteczny SA's business model assumes a significant share of mortgage bonds in the bank's financing structure. The mortgage bond is a stable source of financing, although its balloon repayment character frequently necessitates its replacement with additional bonds or alternative financing sources. The liquidity management process in PKO Bank Hipoteczny SA pays particular attention to the matching of terms of cash flow items and the ability of the Bank to renew its financing sources during the maturity period of significant liabilities (repurchase of mortgage bonds).



3. Own funds

For the purpose of capital adequacy, own funds are calculated according to the regulations of the Banking Law and Part Two of the CRR together with supplementary acts related to the CRR.

Own funds of the Group include Common Equity Tier 1 capital and Tier 2 capital. No items classified as Additional Tier 1 capital are identified in the Group.

Included in the Common Equity Tier 1 capital are the following:

- 1) share capital presented according to the Bank's Statutes and entry in the Trade Registry, at nominal value,
- supplementary capital established from the annual net profits, assigned to absorb balance sheet losses that may arise within the Bank's activities,
- other reserve capital established independently from the supplementary capital, created from the annual net profits in the amount defined by the General Meeting (hereinafter referred to as "GM"), assigned to absorb balance sheet losses exclusively,
- 4) other accumulated total income (except for profits and losses related to cash flow), with the unrealised profits and losses on instruments classified as AFS (available for sale) recognized under the transition period (until the end of 2017) in the amount accepted by the Banking Law,
- general risk reserve created from the annual net profits in the amount defined by the GM, assigned to absorb unidentified losses may arise within the Bank's activities,
- 6) retained earnings,
- 7) net financial result prior to approval and net result for the current reporting period – calculated based on applicable accounting standards, decreased by any expected charges and dividends, in amounts not exceeding amounts audited by a certified public accountant; net financial result can be included in own funds under the condition of GM's approval or, prior to the aforementioned approval, consent of the PSFA.

Common Equity Tier 1 capital is reduced by the following items:

- 1) losses for the current financial year,
- intangible assets valued at their carrying amount, after deduction of the related provisions for deferred tax. The deducted amount includes goodwill included in the valuation of significant investments.
- additional adjustments for assets valued at their fair value, subject to requirements for prudent valuation, which are deducted from Common Equity Tier 1 capital,
- deferred tax assets related to future profitability, not resulting from temporary differences, recognized in the amount described in the Banking Law during the transitional period (i.e. until the end of 2017),
- additional fair value adjustments of liabilities and derivative instruments constituting liabilities, resulting from the own credit risk of the Bank, recognized in the amount described in the Banking Law during the transitional period (i.e. until the end of 2017),
- 6) deferred tax assets related to future profitability arising from temporary differences, not exceeding 10% of Common Equity Tier 1 capital (after deductions described in items 1-5 and 7).
- 7) direct and indirect equity exposures of the Bank in financial sector entities in which it doesn't have any significant investments, in the form of shares or other instruments of Common Equity Tier 1 or Tier 2 capital of said entities, not exceeding 10% of Common Equity Tier 1 capital of the Bank (after deductions described in items 1-5),
- 8) direct and indirect capital exposure in financial sector entities in which the institution has significant investments, in the form of shares or other instruments of Common Equity Tier 1 of said

entities, exceeding 10% of Common Equity Tier 1 capital of the institution (after deductions described in items 1-5 and 7),

- 9) amount by which the sum of:
 - deferred tax assets related to future profitability arising from temporary differences, not exceeding 10% of Common Equity Tier 1 capital (after deductions described in items 1-5 and 7)
 - s) direct and indirect capital exposure in financial sector entities in which the institution has significant investments, in the form of shares or other instruments of Common Equity Tier 1 of said entities, not exceeding 10% of Common Equity Tier 1 capital of the institution (after deductions described in items 1-5 and 7),

exceeds 17.65% of Common Equity Tier 1 capital of the institution (after deductions described in items 1-7). The amount below the aforementioned threshold is included in risk weighted exposures,

- 10) during the transitional period described in the CRR (end of 2017), Common Equity Tier 1 capital is reduced by the amount, by which the sum of:
 - deferred tax assets related to future profitability arising from temporary differences, not exceeding 10% of Common Equity Tier 1 capital (after deductions described in items 1-4 and 6) and.
 - u) direct and indirect capital exposure in financial sector entities in which the institution has significant investments, in the form of shares or other instruments of Common Equity Tier 1 of said entities, not exceeding 10% of Common Equity Tier 1 capital of the institution (after deductions described in items 1-5 and 7),

exceeds 15% of Common Equity Tier 1 Capital of the institution. The amount below the aforementioned threshold is included in risk weighted exposures.

The Tier 2 capital comprises subordinated liabilities i.e. funds acquired by the Bank - in the amount and based on the consent of the PFSA issued in response to the Bank's request - conforming to the principles laid out in art. 63 of the CRR.

The Tier 2 capital is reduced by the following items:

- direct and indirect capital exposure in financial sector entities in which the institution has significant investments, in the form of instruments of Tier 2 capital of said entities,
- direct and indirect capital exposure in financial sector entities in which the institution doesn't have any significant investments, in the form of shares or other instruments of Tier 2 capital of said entities,
- 3) if the deductions described in points 1 and 2 above would result in a negative value of Tier 2 capital, the remaining value of said deductions is used to reduce Common Equity Tier 1 capital.

By way of derogation, during the transitional period described in the CRR, the residual amounts specified by the Banking Law are deducted from the Common Equity Tier 1 and Tier 2 capital on the 50/50 basis.

Conforming to the Executive Order 1423/2014, the Table 3.1 presents information on reconciliation of items from the report on the financial situation used in own fund requirements calculation as at 31 December 2016





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

		2016							
The Bank Group	IFRS compliant financial report	De-consolidation of entities not subject to prudential consolidation	Prudential consolidation / CRR compliant financial report	Items not recognized in the regulatory own funds	Items recognized in the regulatory own funds				
Assets									
Intangible assets	3 422	-189	3 233	-252	2 981				
Liabilities									
Intangible assets	2 539	0	2 539	-16	2 523				
Capital									
Share capital	1 250	0	1 250	0	1 250				
Supplementary capital	24 491	-73	24 417	0	24 417				
Other reserves	3 608	-55	3 552	0	3 552				
General banking risk reserve	1 070	0	1 070	0	1 070				
Other income	-689	-21	-709	49	-661				
Revaluation capital related to assets available for sale	-347	-11	-358	-60	-418				
Revaluation capital related to cash flow hedging instruments	-109	0	-109	109	0				
Exchange differences	-222	-10	-231	0	-231				
Actuarial gains / losses	-11	0	-11	0	-11				
Share in other comprehensive income of an associated entity	-1	0	-1	0	-1				
Net profit for the current period	2 874	94	2 968	-2 968	0				
Previous years' result	-19	199	181	1 589	1 770				
Non-Controlling Interest	-16	16	0	0	0				
Total own funds	32 569	161	32 729	-1 331	31 399				
Additional deductions		<u> </u>			0				
Additional adjustments of assets me					-67				
Deferred tax assets reliant on future			om temporary differen	ces	-1				
Own funds total used for calculation	of capital adequa	cy ratio			30 873				

Conforming to the Executive Order 1423/2014, the Table 3.2 presents information on the type and value of key items of own funds utilised in the calculation of Total Capital Ratio as at 31 December 2016. Rows with values equal to 0 have been omitted.



Table 3.2 Own funds used for calculation of capital adequacy ratio (consolidated basis)

The	Bank Group		
Com	nmon Equity Tier I capital: Instruments and reserves	(A) Amount at disclosure date	(B) Regulation (EU) No 575/2013 article reference
1	Capital instruments and the related share premium accounts	1 250	26 (1) a), b)
	of which: A-SERIES REGISTERED SHARES	313	
	of which: A-SERIES COMMON BEARER SHARES	198	
	of which: B-SERIES COMMON BEARER SHARES	105	
	of which: C-SERIES COMMON BEARER SHARES	385	
	of which: D-SERIES COMMON BEARER SHARES	250	
2	Retained earnings	1 770	26 (1) c), 28
3	Accumulated other comprehensive income	27 260	26 (1) d), e)
3a	Funds for general banking risk	1 070	26 (1) f)
6	Common Equity Tier I prior to regulatory adjustments	31 350	26
Com	mon Equity Tier I capital: regulatory adjustments	1	
7	Additional value adjustment (negative value)	-51	34
8	Intangible assets (net of related deferred tax liabilities) (negative value)	-2 981	36 (1) b)
10	Deferred tax assets reliant on future profitability excluding those arising from temporary differences (net of related income tax liabilities providing the conditions in Article 38 (3) are met) (negative value)	-1	36 (1) c), 38
11	Fair value reserves related to gains or losses resulting from cash flow headging instruments	109	33 (1) a)
14	Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	-27	33 (1) c)
26	Regulatory adjustments applied to Common Equity Tier I in respect of amounts subject to pre-CRR treatment	11	469 (1) a), b), 472 (5), 468 (4), 472 (2), 478
26a	Regulatory adjustments relating to unrealised gains and losses pursuant to Article 467 and 468	-60	467, 468
	of which: filter for unrealised loss 1	-34	467
	of which: filter for unrealised loss 2	-25	467
	of which: filter for unrealised loss 3	0	467
28	Total regulatory adjustments to Common equity Tier I	-3 000	
29	Common Equity Tier I capital	28 350	50
Add	itional Tier I: regulatory adjustments		
	Tier I capital (Tier I = Common Equity Tier I + Additional Tier I capital)	28 350	25
Tier	II capital: instruments and provisions		,
46	Capital instruments and the related share premium accounts	2 523	62 a), 63
51	Tier II capital before regulatory adjustments	2 523	62
Tier	II Capital: regulatory adjustments		
58	Tier II capital	2 523	71
59	Total capital (Tier I + Tier II capital)	30 873	72



Capi	tal ratios and buffers		
61	Common Equity Tier I (as a percentage of risk exposure amount)	14.51%	92 (1) a)
62	Tier I (as a percentage of risk exposure amount)	14.51%	92 (1) b)
63	Total capital (as a percentage of risk exposure amount)	15.81%	92 (1) c)
64	Institution specific buffer requirement (CET1 requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus systemically important institution buffer expressed as a percentage of risk exposure amount)	2.00%	CRD 128, 129, 130, 131, 133
65	of which: capital conservation buffer requirement	1.25%	
66	of which: countercyclical buffer requirement	0.00%	
67	of which: systemic risk buffer requirement	0.00%	
67a	of which: Global Systemically Important Institution (G-SII) or other Systemically Important Institution (O-SII) buffer	0.75%	
68	Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)	6.51%	CRD 128
Amo	unts below the thresholds for deduction (before risk weighting)	•	
72	Direct and indirect holdings of the capital of financial sector entities where the institution does not have a significant investement in those entities (amount below 10% threshold and net of eligible short positions)	163	36 (1) h), 46 (4)
73	Direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investement in those entities (amount below 10% threshold and net of eligible short positions)	1 005	37 (1) i), 48 (1), 470
75	Deferred tax assets arising from temporary differences (amount below 10% threshold, net of related tax liability where the conditions in Article 38 (3) are met)	2 012	39 (1) c), 48 (1), 470

As at 31 December 2016, conforming to par. 48 of the CRR, capital exposure in financial sector entities didn't exceed 10% of Common Equity Tier 1 capital, and therefore do not constitute an impairment to own funds of the Bank and the Group and have been included in risk weighted assets.

The main features of instruments issued by the Bank and included in the Common Equity Tier 1 and instruments of Tier 2 capital are presented in Table 3.3 (PLN). Rows not related to the Group companies have been omitted.

Table 3.3 Capital instruments' main features (PLN)

Capit	al instruments	I	II	III	IV	V	VI	VII
1	Issuer	PKO BP	Nordea AB					
2	Unique identifier (eg. CUSIP or Bloomberg identifier for private placement)	PLPK00000016	PLPK00000016	PLPK00000016	PLPK00000016	PLPK00000016	PLPKO0000081	
3	Governing law(s) of the instrument	Polish law						
4	Transitional CRR rules	Common Equity Tier I	Tier 2	Tier 2				
5	Post-transitional CRR rules	Common Equity Tier I	Tier 2	Tier 2				
6	Eligible at solo/(sub-)consolidated / solo and (sub-) consolidated	Solo and consolidated	Solo and consolidated	Solo and consolidated	Solo and consolidated	Solo and consolidated	Solo and consolidated	Solo and consolidated
7	Instrument type (types to be specified by each jurisdiction)	common stock	bonds	subordinated debt				
8	Amount recognised in regulatory capital (PLN, as of most recent reporting date)	312 500 000	197 500 000	105 000 000	385 000 000	250 000 000	1 600 700 000	922 275 200
9	Nominal amount of instrument	312 500 000	197 500 000	105 000 000	385 000 000	250 000 000	1 600 700 000	780 013 000 PLN 224 000 000 CHF
9a	Issue price	312 500 000	197 500 000	105 000 000	385 000 000	250 000 000	-	-
11	Original issue date	-	-	-	-	-	14.09.2012	-
12	Perpetual or dated	perpetual	perpetual	perpetual	perpetual	perpetual	dated	dated
13	Original maturity date	no maturity	14.09.2022	24.04.2022				
17	Fixed or floating dividend / coupon	Floating dividend	Floating coupon	Floating coupon				
30	Write-down features	No						
36	Non-compliant transitional features	No						

At 31 December 2016 the net profit of the Bank for 2015 (PLN 2.571 million), which is not intended to be distributed as a dividend, have been included in the own funds of the Bank calculated for capital adequacy purposes. Aforementioned net profit, together with retained earnings from previous years (PLN 1.250 million) which at 31 December 2015 was included in own funds of the Bank as retained earnings (in total PLN 3.821 million), was included in supplementary

and reserve capital, pursuant to Resolution 7/2016 of the General Meeting of Powszechna Kasa Oszczędności Bank Polski SA of 30 June 2016, regarding distribution of profits of PKO Bank Polski SA for year 2015 and settlement of remaining retained earnings from previous years. Additionally, with the PFSA's prior permission, the net profit for 3 quarters of 2016 reduced by foreseeable charges was included in own funds of the Bank (PLN 1.589 million).



4. Own funds requirements

Pursuant to the CRR, the Group calculates own funds requirement for the following types of risk:

- 1) the credit risk using the standardized approach pursuant to part III, Title II, Chapter 2 of the CRR, using the following formula:
 - statement of financial position items a product of a carrying amount (considering value of adjustments for specific credit risk), a risk weight of the exposure calculated according to the standardised method of credit risk requirement as regards own funds and 8% (considering recognised collaterals),
 - w) off-balance sheet liabilities granted a product of value of liability (considering value of adjustments for specific credit risk), a risk weight of the product, a risk weight of offbalance sheet exposure calculated according to the standardized method of credit risk requirement for own funds and 8% (considering recognized collaterals),
 - x) off-balance sheet transactions (derivative instruments) a product of risk weight of the off-balance sheet transaction calculated according to the standardized method of credit risk requirement for own funds, equivalent in the statement of financial position of off-balance sheet transaction and 8% (the value of the equivalent in the statement of financial position is calculated in accordance with the mark-to-market method).
- 2) the operational risk¹⁴:
 - using AMA for the Bank, excluding the Bank's foreign branch in the Federal Republic of Germany,
 - using BIA (pursuant to Part III, Title III of the CRR) for the Bank's foreign branch in the Federal Republic of Germany and Group companies subject to prudential consolidation,
- the market risk (pursuant to Part III, Title IV, Chapter 2-4 of the CRR):
 - aa) foreign-exchange risk using basic approach,
 - bb) commodities risk using simplified approach,
 - cc) equity risk using simplified approach,
 - dd) specific risk of debt instruments using basic approach,
 - ee) general risk of debt instruments using duration-based approach,
 - ff) other risks, apart from the delta risk (non-delta risk) scenario approach for options for appropriate internal pricing models is implemented and delta-plus approach for other options.
- 4) other risks:
 - gg) settlement and delivery risk pursuant to Part III, Title V of the CRR,
 - hh) counterparty credit risk using mark-to-market method, pursuant to Part III, Title II. Chapter 6 of the CRR,
 - ii) credit valuation adjustment risk (CVA) using standardised method, pursuant to Part III, Title VI of the CRR,
 - jj) large exposures limit risk pursuant to articles 395-401 of the CRR,
 - kk) own funds requirement for trade exposures and own funds requirement for pre-funded contributions to the default fund of a CCP is calculated for exposures to a central counterparty, pursuant to Part III, Title II, Chapter 6, Section 9 of the CRR.

¹⁴ Since 31 December 2015, with prior permission of the PFSA from July 2015, the AMA approach was applied to own funds requirements for operational risk of the Bank, excluding the Bank's foreign branch in the Federal Republic of Germany (BIA). Since 31 December 2012 until 30 December 2015, with prior permission of the PFSA, the AMA was applied to all Bank's activities.

Total own funds requirement for the Group comprises all of the above requirements for selected types or risk.

Contractual netting agreements are recognised in own funds requirement for counterparty credit risk pursuant to articles 295-298 of the CRR.

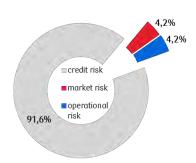
Information on the structure of own funds requirements of the Bank and the Group is presented in Table 4.1.

Table 4.1 Own funds requirement

	The Bank Gr	roup	Bank	
	2016	2015	2016	2015
Total own funds requirement	15 626	14 837	14 489	14 269
Credit risk	14 271	13 658	13 299	13 176
Settlement / delivery risk	0	0	0	0
Market risk	651	485	661	519
Risk related to credit valuation adjustment	47	31	47	31
Operational risk	656	663	482	543

As at 31 December 2016, the biggest part of the Group's total own funds requirements was the own funds requirement for credit risk (91.6%) - Chart 4.1. Credit risk showed on the chart includes risk of credit valuation adjustment. Settlement risk is presented as part of market risk

Chart 4.1 Structure of capital requirement of the PKO Bank Polski SA Group by risk types



Value of own funds requirements for the credit risk for 2016 increased in comparison to 2015 by ca. PLN 119 million and resulted mainly due to increase of loans to customers.

The Bank utilizes netting in its calculation of own funds requirements for the counterparty credit risk, pursuant to art. 295-298 of the CRR.

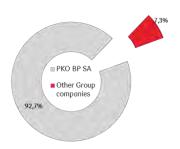
The decrease of own funds requirement for market risk by ca. 17% (down from PLN 485 million) in comparison to 2014 results primarily from the changes regarding recognition and optimization of bond underwriting transactions.

The increase of own funds requirement for operational risk from PLN 663 million as at 31 December 2015 up to PLN 656 million as at 31 December 2016 includes the release of provisions regarding merger of the Bank and Nordea Bank Polska SA. as well as acquisition of Raiffeisen Leasing SA by PKO Leasing SA.

Own funds requirement for the Bank constitutes a significant part (96.2%) of the total own funds requirement for the Group (Chart 4.2).



Chart 4.2 Structure of capital requirement by companies in the Group



The Bank Group comprises insurance companies, PKO Życie Towarzystwo Ubezpieczeń SA and PKO Towarzystwo Ubezpieczeń SA, which, as an entity covered with separate supervision of PFSA Office, including capital requirements compliance assessment for insurance undertakings, is excluded from the prudential consolidation.

4.1. Credit risk

The own funds requirement for credit risk and the counterparty credit risk as at 31 December 2016 is shown (by exposure classes) in Table 4.2

Table 4.2 Structure of own funds requirement for credit risk

The Bank Group	2016		2015	
Total	14 271	100,0%	13 658	100,0%
Exposures to central governments or central banks	486	3,4%	304	2,2%
Exposures to regional governments or local authorities	153	1,1%	170	1,2%
Exposures to public sector entities	17	0,1%	9	0,1%
Exposures to multilateral development banks	0	0,0%	0	0,0%
Exposures to international organisations	0	0,0%	0	0,0%
Exposures to institutions	197	1,4%	150	1,1%
Exposures to corporates	3 724	26,1%	3 750	27,5%
Retail exposures	5 390	37,8%	4 996	36,6%
Exposures secured by mortgages on immovable property	3 045	21,3%	2 883	21,1%
Exposures in default	582	4,1%	823	6,0%
Exposures associated with particularly high risk	102	0,7%	59	0,4%
Exposures in the form of covered bonds	0	0,0%	0	0,0%
Items representing securitisation positions	0	0,0%	0	0,0%
Exposures to institutions and corporates with a short-term credit assessment	0	0,0%	0	0,0%
Exposures in the form of units or shares in collective investment undertakings ('CIUs')	1	0,0%	1	0,0%
Equity exposures	175	1,2%	197	1,4%
Other items	401	2,8%	317	2,3%

The Group is obliged to maintain the highest own funds requirement for the risk related to retail exposures (37.8%), corporate exposures (26.1%) and exposures secured on real property (21.3%), which results from the Bank's high exposure to such types of segments.

4.1.1. Use of external credit assessment institutions (ECAI)

Within the calculation of its own funds requirements, the Bank uses the credit assessments assigned by the following external credit assessment institutions (rating agencies):

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

The Bank implemented the process of carrying the issuer's and issue's rating to off-trading book items for the purposes of calculation of the own funds requirements functions in accordance with the CRR, Part III, Title II, Chapter 2.

4.1.2. Exposure to securitization positions

Detailed information in this respect can be found in consolidated financial statement for the Group for 31 December 2016, published on 6 March 2017 (72 "Information on securitisation of lease portfolio and portfolio sale of receivables").

4.2. Market risk

The market risk of the Bank Group is determined primarily by the Bank.

The largest share in the value of requirement for market risk in the Group for 2016 was related to the specific risk of debt instruments (approx. 55.0%), which results from growth of liabilities for underwriting of the corporate bonds. Another type of capital requirement that is significant in terms of value is the own funds requirement for the general debt instruments risk (approx. 24.3%) (table 4.3).

Table 4.3 Own funds requirement for market risk

	The Bank Group		Bank	
	2016	2015	2016	2015
Specific risk related to debt instruments	358	314	358	341
Genereal risk related to debt instruments	158	167	168	175
Risk related to capital instruments	134	1	134	1
Commodities risk	0	0	0	0
Foreign exchange risk	0	0	0	0
Position risk related to exposures in CIUs	1	2	1	2
Total	651	485	661	519

The own funds requirement for FX risk was zero due to the fact that the total currency position did not exceed 2% of the Bank's own funds. As at the end of 2016 the Bank did not have an open position for commodity price risk, so the respective own funds requirement was zero.

Considering the fact that the Group does not use internal models for the purpose of calculation of own funds requirements for market risk, art. 455 of the CRR does not apply.

4.3. Operational risk

Capital requirement for the Bank constitutes the largest share in the value of requirement for operational risk of the Group in 2016 (73%).

Table 4.4 Capital requirement for operational risk

	The Bank Group		Other Group of	companies	Bank		
	2016	2015	2016	2015	2016	2015	
Total	656	663	174	120	482	543	
Basic Index Approach - BIA	174	120	174	120	0*	0**	
Advanced approach - AMA	482	543	0	0	482	543	

 $^{^{\}star}$ Own funds requirement for operational risk for Branch in the Federal Republic of Germany was equal to PLN 525 thousands.

^{**} Own funds requirement for operational risk for Branch in the Federal Republic of Germany was equal to PLN 54 thousands.



5. Encumbered and unencumbered assets

Information regarding encumbered and unencumbered assets of the Group can be found in the tables below. Respective assets are considered encumbered, if they have been pledged or are subject to any form of agreement aimed at securing or increasing a credit rating of any on- or off-balance sheet transaction, and cannot be freely withdrawn (for instance to be pledged for financing purposes).

The Group held encumbered assets as of 31 December 2016:

a) resulting from sell-buy-back transactions

b) Registered treasury bonds, pursuant to art. 18 items 3a of Mortgage Bonds and Mortgage Banks Act.

Moreover, the Group held securities in the form of mortgage bonds, secured with mortgage loans in the amount of PLN 4,655 million. In 2016 the Bank acquired Raiffeisen-Leasing Polska SA, which as at 31 December 2016 had an outstanding loan (PLN 153 million) towards The European Bank for Reconstruction and Development secured by assignment of lease financing claims. Simultaneously, Raiffeisen-Leasing Polska SA is an issuer of bonds (PLN 1,261 million) secured by lease financing contractual claims (PLN 1,262 million).

Table 5.1 Encumbered and unencumbered assets

	2016	2016						
The Bank Group	3 3	Thur value of		Fair value of unencumbered assets				
Assets of the reporting institution	19 994		263 020	-				
Equity instruments	0	0	492	492				
Debt securities	284	284	52 971	48 105				
Other assets	0	-	18 809	-				

Table 5.2 Collateral received

	2016				
The Bank Group	Fair value of encumbered collateral received or own debt securities issued	Fair value of collateral received or own debt securities issued available for encumbrance			
Collateral received by the Group	0	0			
Equity instruments	0	0			
Debt securities	0	0			
Other collateral received	0	0			
Own debt securities issued other than own covered bonds or ABSs	0	0			

Table 5.3 Encumbered assets/collateral received and associated liabilities

	2016	2016				
The Bank Group	Matching liabilities, contingent liabilities or securities lent	Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered				
Carrying amount of selected financial liabilities	4 823	6 363				



6. Capital buffers

Pursuant to the CRR and the act on macroprudential supervision, financial institutions are obligated to hold additional capital buffers over the minimum levels set out in the CRR for:

- 1) Total Capital Ratio (TCR),
- 2) Tier 1 capital ratio (T1),
- 3) Common Equity Tier 1 capital ratio (CET1).

Buffers need to be covered with Common Equity Tier 1 capital.

Capital conservation buffer – imposed on all banks. The buffer will be increased on a yearly basis until its final, stable level of 2.5% (in 2019). As of 31 December 2016, the capital conservation buffer was equal to 1.25%

Countercyclical buffer - imposed with the aim of mitigating the systemic risk resulting from the credit cycle. Countercyclical buffer is

introduced by the finance ministry during an increased lending activity and cancelled during its slowdown. For exposures located in each Member State, the countercyclical buffer rate is set by authority designated by that Member State. As at 31 December 2016 the countercyclical buffer rate was set at 1,5% for exposures located in Norway and Sweden, 0,625% for exposures located in Hong Kong and 0% for exposures located in remaining countries. Since 1 January 2016 for exposures located in Poland the countercyclical buffer rate was set at 0% by Regulation of Polish Minister of Finance.

The Bank specific countercyclical buffer is set taking into account the countercyclical buffer rates set by each country where exposures of the Bank are located. As at 31 December 2016 the bank specific countercyclical buffer of the Group was equal to 0%.

Table 6.1 and 6.2 present geographic distribution of exposures with corresponding countercyclical buffer rate.



Table 6.1. Geographical distribution of credit exposures relevant for the calculation of the countercyclical capital buffer Exposure*

201	6							
		General credit exposures	Trading book exposures	Own funds requirements				
The Bank Group		Exposure value for SA	Sum of long and short positions of trading book exposures for SA	of which: General credit exposures	of which: Trading book exposures	Total	Own funds requirements weights	Countercyc lical buffer rate
		010	030	070	080	100	110	120
010	Breakdown by country			l	•			I
1	Poland	261 518	7 235	13 201	262	13 463	0.982086	0
2	Norway	452	0		0			1.5
3	Liberia	281	0		0			0
4	Luxembourg	259	0		0		0.001513	0
	Sweden	243	343	19				1.5
6	Great Britain	138	0					0
7	Germany	107	0		0			0
9	Bahamas	104	0					0
	Czoch Ropublic	86 64	0		0			0
	Czech Republic Malta	43	0					0
12	Netherlands	26	0		0		0.000242	0
	Romania	16	0		0		0.000108	0
14	Ukraine	1 065	0		0			0
	Ireland	11	0		0		0.000203	0
16	Switzerland	9	0		0		0.000036	0
	France	8	0					0
	Belgium	5	0					0
	Italy	5	0					0
20	United Atates of America	4	0					0
21	Denmark	3	0	0	0	0	0.000014	0
22	United Arab Emirates	3	0	0	0	0	0.000017	0
23	Estonia	3	0	0	0	0	0.000001	0
24	South Korea	2	0	0	0	0	0.000011	0
25	Spain	2	0	0	0	0	0.000007	0
26	Austria	1	0	0	0	0	0.000005	0
27	Australia	1	0	0	0	0	0.000005	0
28	Lithuania	1	0				0.000004	0
	Canada	1	0					0
30	Russia	1	0					0
	Bulgaria	1	0					0
	Finland	1	0		0	Ů		0
	Central African Republic	1	0					0
	Kazakhstan	0	0					0
	Greece	0	0					0
	Moldova	0						0
	Portugal Columbia	0						0
	Iceland	0	0					0
	Brazil	0	0					0
	Hong Kong	0	0					0.625
	Belarus	0						0.023
	Armenia	0						0
	Slovenia	0	0					0
	Slovakia	0	0					0
	India	0	0					0
	Latvia	0	0					0
	China	0	0					0
	Turkey	0	0					0
	Uganda	0						0

Bank Polski

CAPITAL ADEQUACY AND OTHER INFORMATION SUBJECT TO DISCLOSURE OF THE PKO BANK POLSKI SA GROUP FOR THE YEAR ENDED 31 DECEMBER 2016 (IN PLN MILLION)

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Konk Polsk

CAPITAL ADEQUACY AND OTHER INFORMATION SUBJECT TO DISCLOSURE OF THE PKO BANK POLSKI SA GROUP FOR THE YEAR ENDED 31 DECEMBER 2016 (IN PLN MILLION)

121	Senegal	0	0	0	0	0	0.000000	0
122	Montenegro	0	0	0	0	0	0.000000	0
123	Sudan	0	0	0	0	0	0.000000	0
124	Singapore	0	0	0	0	0	0.000000	0
125	Ethiopia	0	0	0	0	0	0.000000	0
126	Falkland Islands	0	0	0	0	0	0.000000	0
127	Peru	0	0	0	0	0	0.000000	0
128	Ecuador	0	0	0	0	0	0.000000	0
129	Saint Vincent and the Grenadines	0	0	0	0	0	0.000000	0
130	Gibraltar	0	0	0	0	0	0.000000	0
131	Liechtenstein	0	0	0	0	0	0.000000	0
132	Eritrea	0	0	0	0	0	0.000000	0
133	Indonesia	0	0	0	0	0	0.000000	0
134	Chile	0	0	0	0	0	0.000000	0
135	Togo	0	0	0	0	0	0.000000	0
136	Turkmenistan	0	0	0	0	0	0.000000	0
137	Tanzania	0	0	0	0	0	0.000000	0
138	Micronesia	0	0	0	0	0	0.000000	0
139	Angola	0	0	0	0	0	0.000000	0
140	Gambia	0	0	0	0	0	0.000000	0
141	Bouvet Island	0	0	0	0	0	0.000000	0
142	Dominica	0	0	0	0	0	0.000000	0
143	Costa Rica	0	0	0	0	0	0.000000	0
144	Andorra	0	0	0	0	0	0.000000	0
145	Benin	0	0	0	0	0	0.000000	0
146	Guatemala	0	0	0	0	0	0.000000	0
147	Vanuatu	0	0	0	0	0	0.000000	0
	Niger	0	0	0	0	0	0.000000	0
149	Cayman Islands	0	0	0	0	0	0.000000	0
020	Total	264 467	7 578	13 419	289	13 709	1.000000	

^{*} The value of the exposure equal to 0 results from rounding to PLN millions and is not equivalent to lack of exposured in particular country.

Table 6.2 Countercyclical capital buffer specific for the Bank

2016	The Bank Group	
010	Total risk exposure amount	195 320
020	Institution specific countercyclical capital buffer rate	0
030	Institution specific countercyclical capital buffer rate requirement	-

Systemic risk buffer – used to prevent and reduce the long-term, non-cyclical risk or macro-prudential risk, which may cause severe negative consequences for the financial system and economy of the country. As of 31 December 2016 the systemic risk buffer was equal to 0%.

Other systemically important institutions (O-SII) buffer is an additional buffer for institutions that may generate systemic risk. On 10 October 2016 the Bank received the decision of the PFSA classifying the Bank as O-SII on the basis of an assessment of the systemic importance of the Bank in accordance with Article 39.6 of the Act of 5 August 2015 on

Macro-Prudential Supervision and Crisis Management in the Financial Sector, and imposing on the Bank the buffer 0.75% of total amount of the risk exposure calculated in accordance with art. 92 sec. 3 of the EU Regulation No. 575/2013.

On 13 January 2017 the Polish Financial Stability Board adopted a resolution, which includes a recommendation for the Polish Minister of Finance to impose on banks a systemic risk buffer equal to 3%, applying to all exposures located in the Republic of Poland.



7. Leverage

Table 7.1 Summary reconciliation of accounting assets and leverage ratio exposures

			Leverage ratio exposures as in Capital Requirements Regulation		
		2016	2015		
1	Total assets as per published financial statements	285 573	266 940		
2	Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation	-2 559	-2 290		
4	Adjustments for derivative financial instruments	1 754	1 667		
5	Adjustments for securities financing transactions "SFTs"	2	0		
6	Adjustment for off-balance sheet items (i.e. conversion to credit equivalent amounts of off-balance sheet exposures)	12 042	12 903		
7	Other adjustments	-2 005	-10 653		
8	Total leverage ratio exposure	294 807	268 567		

Table 7.2 Leverage ratio

	The Bank Group	Leverage ratio expo Requirements Regul	
		2016	2015
On-bala	nnce sheet exposures (excluding derivatives and SFTs)		
1	On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral)	282 962	255 709
2	(Asset amounts deducted in determining Tier 1 capital)	-3 000	-3 113
3	Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets)	279 962	252 596
Derivat	ive exposures		
4	Replacement cost associated with all derivatives transactions (ie net of eligible cash variation margin)	1 362	1 367
5	Add-on amounts for PFE associated with all derivatives transactions (mark-to-market method)	1 754	1 667
7	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	-389	0
11	Total derivative exposures	2 727	3 033
Securiti	es financing transaction exposures		
12	Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	74	34
14	Counterparty credit risk exposure for SFT assets	2	0
16	Total securities financing transaction exposures	76	34
Other o	ff-balance sheet exposures		
17	Off-balance sheet exposures at gross notional amount	53 909	52 055
18	(Adjustments for conversion to credit equivalent amounts)	-41 867	-39 152
19	Other off-balance sheet exposures	12 042	12 903
Capital	and total exposures		
20	Tier 1 capital	28 350	24 608
21	Total leverage ratio exposures	294 807	268 567
Leverag	e ratio		
22	Leverage ratio	9,62%	
EU-23	Choice on transitional arrangements for the definition of the capital measure	Transitional	Transitional



Table 7.3 On balance sheet exposures

			Leverage ratio exposures as in Capital Requirements Regulation		
		2016	2015		
EU-1	Total on-balance sheet exposures (excluding derivatives, SFTs), of which:	282 962	255 709		
EU-2	Trading book exposures	9 898	0		
EU-3	Banking book exposures, of which:	273 064	255 709		
EU-4	Covered bonds	0	0		
EU-5	Exposures treated as sovereigns	50 889	47 691		
EU-6	Exposures to regional governments, MDB, international organisations and PSE NOT treated as sovereigns	9 604	10 199		
EU-7	Institutions	4 576	2 840		
EU-8	Secured by mortgages of immovable properties	49 011	42 747		
EU-9	Retail exposures	93 034	85 586		
EU-10	Corporate	42 396	41 247		
EU-11	Exposures in default	6 213	8 299		
EU-12	Other exposures (eg equity, securitisations, and other non-credit obligation assets)	17 342	17 101		

The following factors influenced the leverage ratio in 2016:

- 1) Increase in the value of exposure resulting from:
 - a) increase in credit exposures,
 - b) increase in value of investment securities available for sale,
 - c) increase in value of other assets (cash and its equivalents)
- 2) Increase in the value of own funds results from inclusion of profit for 2015 and profit for 3 quarters of 2016 with the PFSA's prior permission. In 2016 the leverage ratio remained above external and internal limits, as well as above minimum values recommended by the PFSA.

The leverage risk management process is introduced in internal policies regarding capital adequacy of the Bank. The leverage risk assessment is performed by Risk Management Division (Capital Adequacy and Operational Risk Department) and by Accounting Division (Accounting and Reporting Department).

The strategic tolerance limit and threshold for the leverage ratio are defined, monitored and verified at least on a yearly basis. The leverage ratio is calculated, reported and forecasted for the next 4 quarters on a regular basis. The leverage ratio is estimated in the financial planning process and takes into account scheduled changes in business activity and assets structure of the Bank and of the Group. The Bank have developed the list of tools available in case of the need to increase Tier I capital or adjust balance sheet and off-balance sheet items structure in order to manage the leverage risk.



8. Internal capital (Pillar II)

The Group determines the internal capital in compliance with the CRR.

Internal capital is the amount of capital that is required to cover all identified significant types of risk present in the business activity of the Bank and the Group and the effect of changes in the business environment, taken into account the anticipated risk level.

The purpose of internal capital assessment is to define the minimum level of own funds ensuring the safety of operations, taking account of changes in the profile and volume of conducted activities and unfavourable stress conditions.

For each risk classified as material, the Bank develops and implements methods for its assessment and measurement.

The Bank monitors on a cyclical basis the significance of individual types of risk related to the business activity of the Bank and the Bank Group entities.

The total internal capital of the Bank Group is the sum of internal capital required to cover all significant risk types that occur in the companies of the Bank and the Group. A conservative approach to risk aggregation is adopted and the diversification effect is not used.

The amount of internal capital for credit default risk is determined for exposures subject to credit risk at the level of unexpected loss for the portfolio of exposures, covered by the portfolio risk measures and is calculated pertaining to the VaR model. The unexpected credit loss (UL) is the difference between the credit value at risk (CVaR) and the amount of the expected loss (EL). For credit portfolios not covered by the portfolio risk measures, it is assumed that internal capital for credit risk equals own funds requirement for credit risk, calculated under the standard method.

The internal capital to cover the concentration credit risk of the Group is determined as the product of:

- the multipliers of the internal capital surcharge for each material risk concentration type and
- 2) the internal capital to cover the credit default risk.

The value of exposure to a counterparty being a financial institution, sovereign or a central bank is determined on the basis of the exposure values and internal risk weights. Depending on its rating, the exposure is given a credit quality step and appropriate risk weight calculated on the basis of internal methods.

Internal capital for credit dilution risk is equal to the internal capital charge for clients affected by the dilution risk, divided by internal capital for credit default risk. Value of the internal capital charge is calculated on the basis of loan portfolio's rating of the dilution risk affected client.

To calculate the internal capital for interest rate risk and FX risk, the Bank uses the VaR methodology, taken into account the results of stress tests

The internal capital to cover the liquidity risk comprises the total estimated cost of an accelerated sale of securities covering the stress-test related outflow of funds and the cost of acquisition of additional financing for intangible assets necessary to meet the required level of intangible assets.

The internal capital for the Bank's operational risk is equal to the Bank's capital requirement for operational risk calculated using AMA and BIA. The internal capital for the operational risk of the Group entities is adopted as follows:

- for Group entities subject to prudential consolidation as the additional own funds requirement for operational risk, calculated under the basic indicator approach,
- 2) for Group entities not subject to prudential consolidation, except for insurance companies – as equal to the maximum amount of the annual losses related to operational risk for the last 3 years, as suffered by a given entity.

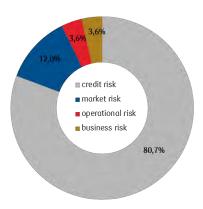
The internal capital to cover business risk of the Bank is determined on the basis of analysis of historical volatility of deviations of realised net revenue from its expected values, in accordance with the earnings at risk concept (Earnings at Risk).

The internal capital for covering business risk of the Group entities is determined as the product of ratio of internal capital calculation for covering business risk and total internal capital of said entity reduced by its internal capital for business risk.

The internal capital calculation approaches are defined in internal regulations. To assess internal capital based when using the statistical models, the time horizon of one year and 99.9% confidence level is applied.

The Chart below presents the structure of internal capital by risk type, as estimated as at 31 December 2016 for the Group.

Chart 9.1 Structure of internal capital of the Group



The total internal capital is allocated by business areas, client segments and by the companies of the Group.

In order to assess the amount of capital required to safely conduct business activity in unfavourable economic conditions, stress tests are carried out.



9. Capital adequacy

Capital adequacy management is a process aiming to ensure that the risk level assumed by the Bank and the Group for the development of business operations can be covered by available capital within specified risk tolerance levels and time horizon. Capital adequacy management process involves, in particular, adherence to applicable supervisory regulations and risk tolerance levels set in the Bank and the Group, capital planning process, including policies related to sources of capital.

The objective of capital adequacy management is to maintain, on an ongoing basis, the level of own funds that is adequate to the scale and risk profile of business activity of the Group.

Capital adequacy management at the Bank comprises:

- definition and implementation of desired capital adequacy objectives,
- 2) identification and monitoring of significant types of risk,
- assessment of the amount of internal capital for individual significant types of risk and of total internal capital,
- 4) definition of internal capital adequacy limits,
- 5) forecasting, monitoring and reporting of internal capital levels and its structure as well as capital adequacy,
- balance sheet structure management with the aim of optimization of quality of the Bank's own funds,
- 7) capital-related contingency actions,
- allocation of own funds requirement and internal capital to business areas, client segments and individual companies of the Group.
- profitability assessment of individual business areas and client segments.

The measures of capital adequacy are as follows:

- 1) the total capital ratio (TCR),
- 2) Tier 1 (T1) capital ratio,
- 3) Common Equity Tier 1 capital (CET1) ratio,
- 4) the own funds to internal capital ratio,
- 5) leverage ratio.

Pursuant to art. 92 of the CRR, the minimum capital ratio levels maintained by the Bank are as follows:

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

Simultaneously, the Bank is obliged to comply with additional requirements imposed by the PFSA and the Act on Macro-prudential

On 10 October 2016 the Bank received the decision of the PFSA classifying the Bank as other systemic important institution ("O-SII") on the basis of an assessment of the systemic importance of the Bank in accordance with the Act on Macro-Prudential Supervision, and imposing on the Bank the buffer 0.75% of total amount of the risk exposure calculated in accordance with art. 92 sec. 3 of the EU Regulation No. 575/2013.

On 18 October 2016 the Bank received the decision of the PFSA recommending to maintain by the Bank additional capital requirement equal to 83 bps above total capital ratio, for the purpose of foreign-denominated mortgage risk hedging, consisting of min. 75% of Tier 1 capital (equivalent to 62 bps above Tier 1 capital ratio) and of min. 56% of Common Equity Tier 1 capital (equivalent to 46 bps above Common Equity Tier 1 capital ratio).

On 30 December 2016 the Bank received the decision of the PFSA recommending to maintain by the Group additional capital requirement

on a consolidated basis, for the purpose of foreign-denominated mortgage risk hedging, equal to 79 bps above total capital ratio, 59 bps above Tier 1 capital ratio and 44 bps above Common Equity Tier 1 capital ratio.

In the letter of 21 December 2016 the PFSA stated its position on dividend policy of the banks. The PFSA recommends that the dividend would be paid by the banks that fulfill jointly the following criteria:

- 1) do not run the recovery plan;
- gain positive assessment during supervisory review and evaluation process - final SREP assessment not lower that 2.5;
- 3) having leverage ratio (LR) higher than 5%;
- 4) for banks identified as OSII (other systematically important institution) having Tier 1 ratio at the level higher than the regulatory minimum plus safety buffer, i.e. Tier 1 ratio (T1) higher than 13.25% + 0.75%*add-on + OSII buffer;
- 5) having total capital ratio higher than: 13.25% + add-on + OSII buffer.

The PFSA recommends that the banks that fulfill jointly the above criteria could pay a dividend up to 50% of the net profit.

Additionally, the PFSA requires that the banks with material portfolios of the foreign currency denominated mortgage loans (having foreing currency mortgages for households with more than 5% share in total receivables from non-financial sector) adjust the dividend payout ratio based on the additional criteria:

- Criterion 1 (K1) based on the share of the foreign currency mortgages for households in total receivables from non-financial sector.
- Criterion 2 (K2) based on the share of the foreign currency mortgage granted in 2007 and 2008 (loans which contribute to bank's losses in case when potential legal solutions are implemented) in total portfolio of foreign currency mortgages for households.

PFSA recommends the following adjustments, related to the size of the bank portfolio:

- 1) Criterion 1
 - a) banks with the share higher than 10% dividend payout ratio adjustment 20%
 - b) banks with the share higher than 20% dividend payout ratio adjustment 30%
 - banks with the share higher than 30% dividend payout ratio adjustment 50%
- 2) Criterion 2
 - a) banks with the share higher than 20% dividend payout ratio adjustment 30%
 - b) banks with the share higher than 50% dividend payout ratio adjustment 50%

Moreover PFSA decided that the banks with unappropriated profits from previous years, would be required to notify PFSA each time that they would plan to use those profits for dividends, and PFSA would issue an individual assessment. Such a consent could be claimed by the banks that fulfill the dividend payment criteria.

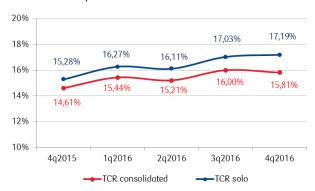
The required for PKO Bank Polski capital ratios level, as recommended by PFSA are as follows:

- 1) for the Bank:
 - a) Tier 1 capital ratio T1 = 14,62%
 - b) Total capital ratio TCR = 14,83%
- 2) for the Group:
 - a) Tier 1 capital ratio T1 = 14,59%
 - b) Total capital ratio TCR = 14,79%

The chart below presents changes in the Total Capital Ratio calculated for the Bank and the Bank Group.

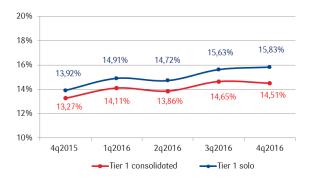


Chart 9.1 Total capital ratio



The chart below presents changes in the Tier 1 (Common Equity Tier 1) Ratio 15 for the Bank and the Bank Group.

Chart 9.2 Tier I capital ratio (T1)/common equity Tier I (CET 1) capital ratio



In 2016 the capital adequacy ratios remained above external and internal limits.

57/66

 $^{^{\}rm 15}$ Tier 1 and common equity Tier 1 ratios are identical in the Bank and the Group.



10. Remuneration policy

The basic internal regulation regard of remuneration policy is the Collective Labour Agreement ('Zakładowy Układ Zbiorowy Pracy' - ZUZP) concluded with the company trade union organisations on 28 March 1994 (with subsequent amendments), under which employees of the Bank receive the following remuneration components:

- 1) the base remuneration,
- additional remuneration for working overtime, as well as under conditions which are especially onerous and detrimental to health,
- bonuses and awards for special achievements in professional work.

Base salaries and additional benefits granted to employees are defined on the basis of job grading (grading categories assigned to specific organisational positions) and analysis of market remuneration in the banking sector.

The Bank's remuneration policy is consistent with sound principles of effective risk management, as confirmed by the analysis accepted by the Supervisory Board in 2016, prepared in cooperation with an external consulting company with particular emphasis on policy objectives, long term value-grown for shareholders and stability of the Bank in particular. The policy did not encourage excessive risk taking and - given the financial situation of the Bank - was sustainable, supported the Bank's strategic objectives and its long-term development.

No significant change of remuneration policy took place in 2016.

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

Pertaining to the CRD IV and regulation 604/2014 of 4 March 2014^{16} , the Bank keeps the principles of determination of variable components of remuneration (bonuses and awards - implemented in 2012) up to date in the following resolutions:

- Resolution of the Supervisory Board on "Principles of variable components of remuneration for the Bank's management" (on the basis of which further regulations have been issued) and the on Regulation on variable components of remuneration for the Management Board Members,
- Resolution of the Management Board on Regulation on variable components of remuneration for the Management,

The list of MRTs – other than Management Board Members – is defined by the Management Board on the basis on quantitative and qualitative criteria used for categorization of employees, whose activities influence the risk profiles enumerated in the UE Delegated Regulation No. 604/2014 from 4 March 2014. Based on the aforementioned criteria, the following are classified as MRTs:

- 1) members of the Management Board,
- top management responsible for a material business unit, risk management and control functions,
- staff members responsible for providing internal support which are crucial to the operation of the business, exposing the Bank to significant risk or other types or risk,
- staff members generating credit and market risk, selected on the criteria of decision limits,

- staff members with a total remuneration exceeding a certain threshold, which have a significant impact on the risk profile of the institution.
- 6) staff members, whose remuneration is on par with remuneration of top management and risk takers (with a significant impact on risk profile).

In 2016, regulations establishing the principles of determination of variable components of remuneration functioned also in selected entities of the Bank Group. "Regulations regarding determination of variable components of remuneration of the Management Board", similar to the ones adopted by the Bank, have also been implemented by: PKO Leasing SA, PKO Towarzystwo Funduszy Inwestycyjnych SA, PKO BP BANKOWY PTE SA, PKO Życie Towarzystwo Ubezpieczeń, PKO Towarzystwo Ubezpieczeń and PKO Bank Hipoteczny SA. Additionally, selected managerial positions in PKO Życie Towarzystwo Ubezpieczeń SA, PKO Towarzystwo Ubezpieczeń and PKO Bank Hipoteczny SA have been included in said principles.

At the same time, due to a change in the regulations governing investment fund companies, especially with entry into force of Art. 47a sec. 1 of the Act of 27 May 2004 on investment funds and management of alternative investment funds and the Ordinance of the Minister of Finance of 30 August 2016 on detailed requirements to be met by remuneration policy of an investment fund, the Supervisory Board of PKO Towarzystwo Funduszy Inwestycyjnych SA on 2 December 2016 accordingly adjusted the remuneration policy as regards the variable remuneration components for both the members of the Management Board and the employees of the Company.

In Raiffeisen-Leasing Polska SA in 2016, the principles of variable remuneration components were introduced by "Corporate guidelines - Remuneration principles based on CRD IV, Raiffeisen-Leasing Polska SA", compliant with the binding rules in the Raiffeisen Bank International AG Capital Group, based on EU regulations and the Austrian banking law. The aforementioned principles applied to the members of Raiffeisen-Leasing Polska SA Management Board.

10.1.1. The process of determination of variable components of remuneration of MRT

The preparation of the policy on variable components of remuneration involved the experts and the Bank's management from the following departments: the Human Resources and Performance Management Department (principles of bonus and remuneration payment), the Department of Labor Affairs, the Planning & Controlling Department (planning, imposing and checking financial objectives).

While preparing the policy, the Bank used external services rendered by a consulting company, PwC Polska. EY Polska provided support to the Bank during the update of aforementioned policy. The policy itself is modified and evaluated by the Supervisory Board on the basis of Management Board's recommendation and Remuneration Committee's opinion.

10.1.2.Supervisory Board remuneration committee (SBRC)

The SBRC was appointed in the Bank to support the Supervisory Board in fulfilment of its statutory obligations and execution of tasks defined in the legal regulations.

The SBRC is formed by the members of the Supervisory Board. (Table 11.1).

¹⁶ 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.



Table 11.1 Members of supervisory board of the Bank forming the remuneration committee

2016				
Name	Function			
Piotr Sadownik	Chairman of the Committee			
Grażyna Ciurzyńska	Vice-Chairman of the Committee			
Wojciech Jasiński	Committee Member			
Elżbieta Mączyńska-Ziemacka	Committee Member			
Janusz Ostaszewski	Committee Member			

The SBRC prepares opinion on the policy on variable components of remuneration – its amount and components – of the Bank's management, including regular and variable components of remuneration of the Management Board Members.

The SBRC is responsible in particular for accomplishment of the following tasks:

- periodic review of principles of the policy on variable components of remuneration of the Bank's MRTs, with presentation of results of said reviews to the Supervisory Board,
- preparing proposals for the Supervisory Board, regarding remuneration policy of the Management Board, including variable components of remuneration and base remuneration,
- presentation of proposal regarding appropriate forms of agreement with the members of the Management Board to the Supervisory Board,
- 4) formulation of opinions regarding applications for consent for a member of the Management Board for competitive activities or participation in a competitive company as a partner in a civil partnership, partnership or as a member of a governing body of a capital company, or in another competitive legal person as a member of its body,
- preparing report on the review of implementation of variable components of remuneration, prepared by the Audit Department,
- 6) preparation of a project of a report regarding functioning of the remuneration policy in the Bank, presented to the General Assembly by the Supervisory Board.

Five meetings of the Remuneration Committee took place in 2016.

10.1.3.Most significant information on characteristics of variable components of remuneration system

The Principles and Remuneration Regulations issued on the basis of such principles describe the manner in which MRTs are granted variable components of remuneration bound to the results and effects of their work – including awards for exceptional achievements and bonuses.

It is forbidden to grant guaranteed variable remuneration to the MRT. It is only permitted to grant recruitment benefits during the hiring of new employees for these posts, and only during the first year of their employment.

The main principle of granting of variable components of remuneration is in particular bonus objectives assigned within the Management by Objectives System (MbO).

The rules indicate that the assigned to MRT goals are to ensure the inclusion of the business cycle of the Bank and the risks associated with the ongoing operations – especially the Bank's profit, C/I ratio for the Bank Group, ROE indicator for the Capital Group, net profit on business operations of selected business areas, implementation of strategy-supporting project. The risk is taken into account by both determining appropriate risk-sensitive criteria for performance evaluation and reduction of bonus or even lack of it in case of degraded performance or financial losses of the Bank (including the use of malus with respect to deferred for three years part of the variable remuneration).

Assessment criteria of a MRT, including member of Management Board should include amongst others:

- impact on regulatory capital, capital adequacy ratio and equity of the Bank in such a way that payment of variable remuneration does not limit possibilities of their strengthening,
- 2) Bank's result on the area of responsibility of a given person in respect to the results of the entire Bank.

The KPI structure combines different types of KPI, that is in particular quantitative and performance indicators resulting from possessed systemic data and coherent with specific nature of the organisation. All performance indicators are parameterised and of measurable nature. Due to nature of a given management position, different proportions of individual assessment levels and weights of the above mentioned KPI types are defined. Responsibilities for risk-adjusted long-term financial results and costs with different structure of objectives depending on a specific nature of accomplished tasks have been used. Positions responsible for control functions are evaluated on the basis of objectives independent from the results of the controlled structures.

Variable components of remuneration for a given period of time (a calendar year) are granted on the basis of Regulations, after bonus objectives have been settled, in the following forms:

- 1) non-deferred from up to 60% of variable remuneration (in the first year after assessed period),
- 2) deferred from up to 40% of variable remuneration (in equal instalments for the following three years after assessed period),

and both, non-deferred and deferred remuneration is granted in equal parts in cash and in form of financial instrument that is phantom shares (that are converted into cash according to updated prices of the Bank's shares after the retention period and in case of deferred remuneration – after deferment).

If the amount of variable remuneration for a given year is higher than PLN 1 million, PLN 400 million and 60% of the surplus over such PLN 1 million is to be deferred.

Variable remuneration – can be no higher than

Bank:	PKO BP BANKOWY PTE SA, PKO Leasing SA, PKO TFI SA, PKO Bank Hipoteczny SA:	PKO TU SA, PKO Życie TU SA:
100% of annual salary of the MRT and 70% of annual salary for a Member of the Management Board	100% of annual salary	100% of annual salary of the MRT and 60% of annual salary for a Member of the Management Board

The aforementioned limit for variable remuneration for persons holding managerial positions outside of the Management Board at the Bank and members of the Management Board and other employees at Bank Hipoteczny, PKO TU SA and PKO Życie TU SA can be raised up to 200% of the fixed component for remuneration for investment banking positions – if approved by the General Meeting of Shareholders. No such increase has taken been applied so far.

50% of every variable component of remuneration of the MRT is related to the value of phantom shares, based on the share price (variable in time) of the Bank. Pursuant to the requirements of the law in Bank Hipoteczny SA financial instruments are related to the book value of net assets, and in PKO TFI SA - with the value of units of investment funds.

The bonus amount:

- for member of the Board may be adjusted in minus or in plus by the certain rate - depending on the achieved results of the Bank specified in the Bank's Annual Note (a set of key indicators of management specified for a given calendar year),
- for MRT who is not a member of the Board it may be adjusted in plus by certain rate depending on the results of the Bank specified in the Bank's Annual Note.

In case of members of the Management Boards, variable components are granted and released on the condition of approval of the financial statement for the given period of assessment by the General Meeting of Shareholders.



The respective Supervisory Board in relation the Bank's or Group company's Management Board and the Management Board in relation to management members may take a decision on possible pro rate reduction of funds for variable remuneration before every payment of such remuneration, taking into account:

- impact on regulatory capital, capital adequacy ratio and the Bank's equity, so payment of variable compensation does not restrict possibilities of their strengthening,
- impact on the capital cost, so payment of variable compensation does not restrict possibilities to maintain proper capital base,
- 3) required risk profile of the Bank,
- financial results of the Bank in respect to long-term plans of development.

In case of:

- 1) significant deterioration in the Bank's results,
- 2) assessment of a significant negative change in equity,
- 3) violation of law or commitment of significant errors by MRT,
- adjustment of implementation and completion degree of results or objectives of MRT,
- 5) performance deterioration of supervised or managed structures,
- granting of variable remuneration on the basis of incorrect, misleading information or MRT fraud

It is possible to use - respectively by the Supervisory Board or Board of Directors - malus-type solution reducing the size of the due variable compensation deferred in subsequent accounting periods.

Material Risk Takers are entitled to the non-financial benefits that are available to all employees, i.e.: medical care, PPE, group insurance.

Members of the Management Board are entitled to Bank-financed insurance, in particular for the death of serious illness, permanent disability, permanent or long-term damage to health and inability to

In case of granting the MRT severance related to the withdrawal from the function associated with the termination of employment (other than resulting from generally applicable laws) its sum reflects the assessment of the work in the last three years of employment. The Bank's regulations stipulate the maximum amount of severance pay.

Members of the Board and selected MRT are additionally covered by non-competition agreements. The agreements provide payment of the required labour law damages for refraining from hiring at competition after the termination of employment at the Bank.

Quantitative data on variable components of remuneration will be published in May 2017.

10.2. Variable components of remuneration of non-MRT employees

10.2.1. Bonuses

PKO Bank Polski SA has a remuneration and incentive system, in which the level of variable component of the salary is determined by the degree of achievement of the targets set. It consists of four pillars:

- MbO (Management by Objectives) covers managerial and expert positions crucial for the Bank's key objectives. The MbO consists of granting bonus which depends on the quality and degree of completion of the tasks.
- 2) Individual Bonus System (IBS) a system of bonuses which depends on the degree of completion of specific tasks in the areas of sales and effectiveness. The system covers those employees who are performing business tasks, mainly in corporate and investment banking, as well as in debt collection.
- Sales Bonus System (SBS) aimed to positions in retail branches, which perform the sale of banking products.

4) Support Bonus System (SBS) - includes other employees not covered by the system MbO, IBS and Sales Bonus System.

The bonus targets of the remaining employees are linked to key management indicators of the Bank taken into account for the purposes of premium imposed on the individual units of the Bank. The principle of cascade included in the bonus rules, which is monitored for compliance purpose, requires assigning targets to workers employed under individual structures.

In addition, each object is placed in line with the SMART principle (S-specific, M-measurable, A-ambitious, R-real T-term), which is also subject to cyclical monitoring.

10.2.2.Awards

Regardless of the bonus system there is a system of rewarding employees, under which the Bank creates a prize fund for the purpose of:

- individual discretionary awards to employees of the Bank, deriving outstanding results in their work or for achievements, which led to results important for the Bank, and
- awards in competitions relating to performance and other competitions organized by the Bank.

10.2.3.Benefits

10.2.3.1. Medical care

The Bank ensures its employees additional healthcare - besides occupational health services which are compulsory according to the regulations of the Polish Labour Code. Employees are entitled to various packages, addressed to particular groups of jobs. Since 2011, the medical care for the employees was extended to include a health promotion program called 'Zdrowie jak w Banku', covering, i.e. a preventive health check and activities directed at health-oriented education and promoting a healthy life style.

10.2.3.2. EPP

As of July 2013, the Employee Pension Program (EPP) functions at the Bank, with which a long-term savings opportunity is available to each employee – complementing mandatory pension payments. The EPP was introduced in the form of a contract on the Bank making basic and additional contributions (3% of salary) on behalf of the employees to investment funds managed by PKO TFI SA.

In connection with the acquisition of Nordea Bank Polska SA on 31 October 2014 and the acquisition of SKOK "Wesoła" on 31 August 2015, additional programs function in the Bank:

- Employee Pension Program created in Nordea Bank Polska SA, designed for its employees, which were enrolled in EPP NoBP during the acquisition,
- Employee Pension Program created in SKOK "Wesoła", designed for its employees, which were enrolled in EPP SKOK during the acquisition.

The aforementioned Employee Pension Programs have been removed from the KNF register on 30 April 2016, at the request of the Bank, due to the need to standardize the conditions of funds collected on one account. At the same time participants of the liquidated programs were allowed to join the EPP of the Bank, thus allowing for further accumulation of funds under the conditions specified in the Bank's EPP.

10.2.3.3. Insurance

Employees are entitled to join the cost-effective group life insurance. The fee is being incurred by the Bank.



10.2.3.4. Social benefits fund

The Bank gives its employees the possibility of using the cafeteria system called 'MyBenefit' as part of which each employee of the Bank may use the funds allocated to him/her from the Company Social Benefits Fund via an online platform on his/her own. The platform offers a broad range of benefits for the employees to choose from, including co-financing of leisure expenses for the employees and their children as well as sport cards of different comapnies .

The amount of funds received to be spent at the cafeteria is dependent on the amount of gross income per person in a given family.

Additionally, the Bank's employees are eligible for housing loans, social assistance funds and funds for additional events related to sport, culture and education, and - starting from 2016 - integration events.



11. Glossary of terms and abbreviation

ABS - asset back securities.

AFS - available for sale - a securities portfolio type under IAS.

AMA (Advanced Measurement Approach) – operational risk advanced measurement approach for the purpose of defining the own funds requirements for operational risk according to the CRR.

Application scoring method- a method for assessing the Bank's credit risk involved in the financing of clients on the basis of scores corresponding to information provided by the client.

Banking book – contains operations not included in the trading book, specifically related to credit facilities and loans and deposits extended or accepted within the bank's basic business activity or for the purposes of liquidity and interest rate risk management.

Basel III – a set of external regulations defining a new approach to the calculation of capital requirements and management of the risk in banks; in particular those defined in Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012 (hereinafter referred to as the "CRR"), executive acts to the CRR, national acts transposing 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 (hereinafter referred to as the "CRD IV").

Behavioural scoring system – a system for assessing the bank's credit risk involved in the financing of clients mainly on the basis of transactions on the current account, used for defining the revolving credit limits.

Business risk – the risk of loss resulting from unfavourable changes in the business environment, unfavourable decisions, improper implementation of decisions or a failure to take appropriate action in response to changes in the business environment; it specifically includes the strategic risk.

Total Capital Ratio (TCR) - the main measure of capital adequacy, calculated as the quotient of own funds and total own funds requirements multiplied by 12.5%.

Capital risk - risk of inadequate, and thus insufficient in relation to the scale of the Bank's activities, level and structure of own funds for absorption of unexpected losses (taking into account both development plans and borderline cases).

CET 1 Ratio (Common Equity Tier 1 Ratio) – Tier 1 funds (exclusive of hybrid instruments and total capital requirements) multiplied by 8%.

CIRS (Currency Interest Rate Swap) – a currency interest rate swap transaction.

Commodities risk – risk of loss related to negative changes in prices of commodities, generated by through the maintenance of open positions in respective commodities.

Compliance risk – the risk of incurring legal sanctions or occurrence of financial losses or a loss of reputation as a result of failure on part of the bank, the bank's employees or entities operating on the Bank's behalf to observe legal provisions, internal regulations and the market standards adopted by the bank.

Concentration risk – the risk of a significant loss or change in the risk profile of the Bank as a result of significant concentration:

- 1) to exposures:
 - a) related to specific entities or group of entities,
 - b) to entities operating in the same sector,
 - c) to entities operating in the same geographical area,

- d) to entities belonging to the Bank Group (operating both domestically and internationally),
- e) denominated in the same currency or indexed to the same currency.
- 2) related to credit mitigation techniques and large indirect credit exposures, such as a single issuer of collateral.

Conduct risk - risk of loss incurred by:

- the client.
- 2) the Bank,
- 3) financial markets (credibility-wise),

as a result of improper actions (also involuntary) or omission by the Bank, its employees or affiliates, regarding financial services.

Confidence level - the probability, expressed usually as a proportion, that the variable (bank's loss) under analysis will not exceed a specific value.

Coverage ratio – a ratio of the credit and loan impairment write-downs to the value of credits and loans assessed by means of individual and portfolio approaches.

CRD IV - Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC.

Credit exposure – total financial assets created as a result of lending or other services, comprising principal amounts and any related charges (eg interest, bonuses, discounts), measured at amortized cost or in the amount of required payments and financial and guarantee commitments...

Credit risk – the risk of incurring losses as a result of counterparty's default in settlement of liabilities towards the Bank or the risk of decrease in the economic value of the Bank's receivables as a result of deterioration of the clients ability to service its debt; credit risk comprises credit value adjustment (CVA) risk, which is the risk of loss as a result of changing market and credit conditions (in particular as a result of a change in the probability of a counterparty default).

Credit Value-at-Risk (CVaR) – a potential loss that should not be exceeded in relation to credit risk on the maintained credit portfolio, on the assumption that a defined confidence level and holding period of the position are kept.

CRR Regulation - 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.

CSA (Credit Support Annex) – a collateral agreement – annex to the framework agreement.

Cumulated adjusted liquidity gap – the sum of all partial real-terms liquidity gaps from the first a'vista interval to the interval for which the cumulated real-terms liquidity gap is calculated.

Cumulated contractual liquidity gap – the sum of all partial contractual liquidity gaps from the first a'vista interval to the interval for which the cumulated contractual liquidity gap is calculated.

Cut-off point – the minimum number of points awarded as a result of client creditworthiness assessment made using the scoring system (for individual clients) or the client or joint rating class (for institutional clients), starting from which a loan transaction may be concluded with a specific client.

CVA (Credit Value Adjustment) - adjustment of the valuation of derivatives reflecting counterparty credit risk.



Derivatives risk – risk associated with a position in a financial instrument, meeting all of the following criteria: the value of the instrument changes with the change in the underlying instrument, no net investment is required or only a relatively small (in comparison to other agreements that react similarly to changes in the market conditions) net investment is necessary, it is to be settled in the future.

DVA (Debt Value Adjustment) - adjustment of the valuation of liabilities and derivatives reflecting the Bank's own credit risk.

EaR (Earnings at risk) – defines maximum deviation of net business income from expected value with an assumed range of confidence in a specified time horizon.

Price risk of equity securities – risk of loss related to changes in prices of equity securities on the public market or securities exchange indices, generated through the maintenance of open positions in instruments that are sensitive to changes in such market parameters.

Leverage risk - risk resulting from vulnerability due to financial leverage or conditional leverage that may require unintended corrective actions of business plans, including emergency sale of assets which could result in losses or result in the need for valuation adjustments of other assets.

Expected Loss, EL – a statistically assessed value of the mean (expected) credit risk loss that the bank expects to incur on the portfolio within one year.

Fair value – an amount for which a specific asset might be exchanged, and a liability discharged, within a market transaction between interested and informed unrelated parties.

Foreign currency retail mortgages risk - the risk of loss as a result of client's default or the risk of a decrease in the economic value of the Bank's foreign currency mortgage loans.

Foreign Exchange (FX) risk – risk of loss due to changes in the foreign exchange rates, generated through maintaining open currency positions in individual currencies.

FRA (Forward Rate Agreement) – a forward agreement for the interest rate. Counterparties determine the interest rate that will apply in the future for a specified amount in the currency of the transaction for a predetermined period.

Framework agreement – an agreement between parties regulating the principles of the Bank's co-operation with counterparties on the financial market with respect to forward financial transactions.

Funded credit risk protection – a credit risk mitigation technique, where the bank's credit risk related to exposure is reduced by that bank's right – in the case of the counterparty's default in the discharge of its liabilities, insolvency, bankruptcy or another credit event affecting that counterparty and specified in the documentation of the transaction, and, if required for the depositary keeping the collateral – to liquidate, transfer, acquire, or retain specific assets or amounts.

FX Swap – a foreign currency exchange swap. Counterparties determine the interest rate that will apply in the future for a specified amount in the currency of the transaction for a predetermined period.

IAS - the International Accounting Standards.

IBNR (incurred but not reported) – a collection of credit exposures, for which an impairment has been recognized, with no individual impairment premises regarding specific exposures falling into this group.

Individual position for a specific foreign currency (the currency position) – the difference between total assets in a currency, off-balance sheet liabilities received and assets indexed to that currency on the one hand, and total liabilities in that currency, off-balance sheet liabilities awarded and liabilities indexed to that currency on the other hand.

Insurance risk - the risk of loss or unfavourable change of value of insurance liabilities due to inadequate assumptions regarding valuation

and creation of provisions (technical and settlement provisions in particular).

Interest rate risk – risk of loss on the Bank's balance sheet and off-balance sheet items sensitive to interest rate changes, resulting from unfavourable interest rate changes on the market.

Internal capital – amount of capital, that is required to cover all identified significant types of risk present in the Bank's business activity and the effect of changes in its business environment, taking into account the anticipated risk level.

IRB (Internal Ratings Based Approach) – an internal ratings method used to determine the capital requirement for credit risk.

IRS (Interest Rate Swap) – a transaction involving a swap of interest rates. Counterparties pay each other (at specified intervals during the term of contract) interest on the contractual nominal value of the contract, calculated at a different interest rate.

ISDA – the International Swap and Derivatives Association.

ISMA - the International Securities Market Association.

Key Performance Indicators, KPI - financial and nonfinancial indicators used as measures in the process of measurements of the level in which objectives of an organisation are achieved.

Key Risk Indicators, KRI – simplified operational risk measure that is significant for a given area, application or process.

LDA (Loss Distribution Approach) – an approach in which historical data on internal and external events are used, as well as the information on the development of business environment factors for statistical measurement of operational risk.

LGD (Loss Given Default) – a loss suffered by the Bank in case of client's default.

Liquidity reserve – the difference between the most liquid assets and expected and potential liabilities that mature in a given period for a given currency.

Liquidity risk – the risk of inability to timely discharge of liabilities due to non-availability of liquid means.

LMA - the Loan Market Association.

LTV - ratio of the credit exposure amount to the value of the real property offered as collateral of that exposure.

 $\begin{tabular}{ll} \textbf{Macroeconomic risk} - a risk of deterioration of the Bank's financial condition in result of adverse impact of changes in macroeconomic conditions. \end{tabular}$

Model risk – possibility of suffering losses in result of wrong business decisions taken on the basis of functioning models.

Material Risk Takers (MRT) – members of the Management Board and key managers with a significant impact on the risk profile of the Bank.

NBP - the National Bank of Poland.

Operational risk – the risk of losses resulting from inadequacy or unreliability of the internal processes, the human factor and systems, or from external events; it includes legal risk and does not include reputation risk and business risk.

Outsourcing - use of external resources.

Own funds requirements – total own funds requirements for particular risk types and own funds requirements for exceeded limits and other violations of norms described in the CRR and CRD IV.

Partial adjusted liquidity gap – the difference between total assets and total liabilities, calculated for each maturity range; tells about a mismatch between matured assets and matured liabilities in a given tenor, their real-terms maturity date taken into account.

PBA - the Polish Bank Association.

PCBA - the Polish Classification of Business Activity.

Rank Polski

CAPITAL ADEQUACY AND OTHER INFORMATION SUBJECT TO DISCLOSURE OF THE PKO BANK POLSKI SA GROUP FOR THE YEAR ENDED 31 DECEMBER 2016 (IN PLN MILLION)

Probability of Default, PD – a statistical assessment of the probability of a borrower's insolvency on the annual scale (defines the portfoliorelated credit risk to become materialised in the future).

Rating method – a method for assessing the bank's credit risk involved in the financing of institutional clients, incurred when awarding or changing the essential terms of a loan transaction and in the period of performance of such transaction.

Recommendation – a list of best practices and suggestions for banks enacted by the Polish Financial Supervision Authority

Reputation risk - risk of reputation loss among customers, counterparties, investors, supervisors and public opinion, due to business decisions, operational events, noncompliance or other events

Settlement risk - the risk resulting from the counterparty's default in the discharge of its liabilities at the moment of settlement of the contract.

Strategic tolerance limit – acceptable risk level defined by the Management Board.

Stress test - a risk management tool used for assessment of the potential impact on the bank's situation of a specific event and/or changes in the market parameters not described in the standard manner with statistical measures.

Trading book – all positions in financial instruments and commodities held by an institution either with trading intent, or in order to hedge positions held with trading intent.

Unexpected Loss, UL - the maximum difference between the Bank's incurred loss at given probability during the year and the expected loss.

Value at risk (VaR) – a potential loss resulting from changes in the present value of cash flows from financial instruments, or a potential loss on the maintained currency positions due to changes in the foreign exchange rates, on the assumption that a defined confidence level and holding period of the position are kept.



Declaration of the Management Board of PKO Bank Polski SA

The Management Board of PKO Bank Polski SA certifies that:

- To the best of its knowledge, the adequacy of rules related to risk management in PKO Bank Polski SA, guarantees that the risk management systems utilized are well suited to the risk profile and strategy of the Bank and the Group.
- Approves the Report "Capital adequacy and other information subject to disclosure of the PKO Bank Polski SA Group as of 31 December 2016", which contains risk-related information, describes the general risk profile of the Bank and the Capital Group, related to their operational strategy, and contains key indicators and data, available to interested external parties, allowing for a comprehensive view of risk management in PKO Bank Polski SA and the Capital Group, including interaction between the Bank's risk profile and risk tolerance in the form of strategic tolerance limits, defined by the Management Board and accepted by the Supervisory Board.

Signatures of all members of the Management Board of PKO Bank Polski SA

14.03.2017	Zbigniew Jagiełło	President of the Management Board	(signature)
14.03.2017	Janusz Derda	Vice-President of the Management Board	(signature)
14.03.2017	Bartosz Drabikowski	Vice-President of the Management Board	(signature)
14.03.2017	Maks Kraczkowski	Vice-President of the Management Board	(signature)
14.03.2017	Mieczysław Król	Vice-President of the Management Board	(signature)
14.03.2017	Piotr Mazur	Vice-President of the Management Board	(signature)
14.03.2017	Jakub Papierski	Vice-President of the Management Board	(signature)
14.03.2017	Jan Emeryk Rościszewski	Vice-President of the Management Board	(signature)