Disclosure Report

In acc. with EU Regulation (EU) No. 575/2013 (CRR)

As of 31 December 2016

Contents

1 Introduction

With the present Disclosure Report Deutsche Pfandbriefbank AG (pbb) constitutes the disclosure requirements under Part 8 of Regulation (EU) No. 575/2013 (Capital Requirements Regulation; CRR) for pbb and its downstream affiliates as of 31 December 2016.

The disclosure requirements are set out in Articles 431 to 455 CRR, additional requirements can be found in section 26a (1), sentence 1 of the German Banking Act (Kreditwesengesetz, "KWG"). pbb is the parent company of the regulatory group as defined in Section 10a of the German Banking Act (KWG) in conjunction with Article 11 et seq. CRR and is responsible for regulatory disclosure requirements.

pbb Deutsche Pfandbriefbank

Deutsche Pfandbriefbank Group (pbb Group) is headed by Deutsche Pfandbriefbank AG (pbb) with its headquarters in Munich/Unterschleißheim, Germany. pbb is a leading European specialist bank for real estate financing and public investment finance. pbb is one of Europe's largest Pfandbrief issuer in terms of outstanding volume and a major issuer of covered bonds.

pbb's business is focused on Germany as well as France, Great Britain, the northern European countries countries and selected central and eastern European countries. In its core markets, pbb offers customers a strong local presence along with expertise across all functions of the financing process. In addition to the European markets, pbb Group has been active in the US real estate market since the second half of 2016 with a focus on the metropolises on the east coast. Thanks to its proficiency in structuring loans, its international approach and the co-operation with financing partners, pbb is able to realise both complex finance deals and cross-border transactions.

The shares of Deutsche Pfandbriefbank AG are listed on the Frankfurt Stock Exchange (MDAX).

Objectives of the Disclosure Report

The Disclosure Report, together with the Annual Report in accordance with the German Commercial Code, provides a comprehensive picture of the current risk profile and risk management of pbb Group. The Disclosure Report is mainly focused on the regulatory perspective and specifically includes information on:

- the regulatory and commercial structure of pbb Group
- the capital structure, base and requirements
- the general risk management system of pbb Group (risk management objectives and policy)
- the risk management in relation to individual risk types
- the remuneration policy as well as
- the leverage ratio.

According to Article 431 (2) CRR, compliance with the disclosure requirements is a precondition to apply certain instruments and methodologies to calculate capital requirements, e. g. the internal ratings-based (IRB) approach for credit risk positions or credit risk mitigation techniques.

In line with Article 432 CRR, institutions may refrain from disclosing one or more items as specified in Part 8, Title II/III of CRR provided that these are not significant or are classified as business secret or sensitive information. pbb however fully complies with all disclosure requirements.

Scope

According to Article 13, (1) CRR, the Disclosure Report is based on the consolidated situation of pbb Group. There are no significant subsidiaries as defined in Article 13 (1) CRR. According to Article 13 CRR, pbb as parent company of the Group is not required to provide a disclosure at institution level.

This Report is based on the regulatory scope of consolidation according to Articles 18 to 24 CRR. As at the reporting date, there was no difference between the regulatory scope and the commercial scope of consolidation used for pbb's consolidated financial statement (IFRS). For the disclosure based on the consolidated situation, business relationships within the consolidation scope must be set off against each other and group-internal business must be eliminated. Regulatory key figures have been determined based on IFRS. Generally pbb Group discloses numbers for the financial year; any comparative values for the previous year (if specified) in the Disclosure Report are provided on a voluntary basis. Unless expressly indicated the numbers are generally based on the legal provisions applicable at the reporting date (including transitional provisions).

Waiver regulation as per Article 7 CRR

Since 15 December 2016, Deutsche Pfandbriefbank AG (pbb) makes use of the so-called Waiver scheme pursuant to Article 7 (3) CRR on the basis of a decision of the European Central Bank (ECB) of the same day. With this decision, pbb, as the parent's supervised parent company (pbb Group), was permitted to take certain control requirements into account only on a consolidated Group basis and not in addition to the individual institution level.

The pbb fulfills the requirements according to Article 7 (3) CRR:

- •Within the pbb Group, there are neither actual nor legal obstacles to the transfer of own funds or the repayment of liabilities by the parent company (pbb). The key company, which is essential to the financial stability of the pbb Group, has its headquarter in Germany. pbb is also the only credit institution within the pbb Group; pbb's share of the consolidated subsidiaries is 100 %. In addition, it is enabled by the existence of a formal group internal decision-making process for the transfer of own funds between pbb as the parent company and parent institution of the Group and its subsidiaries pbb a prompt transfer. As in the previous year, no transfers of own funds or repayments of liabilities within the terms of the regulation contents of Article 7 (1) (a) CRR were made in the reporting year 2016.
- pbb Group has an integrated risk management system that extends to the entire Group, including pbb and its subsidiaries, which are included within the regulatory scope of consolidation. The Management Board of pbb is responsible for the risk management system and decides on the strategies and the key issues of risk management and risk organisation. The principles, methods and processes of the pbb Group's risk management system are centrally defined by pbb and are applied by the pbb Group (subject to the implementation required by company law and any necessary modifications at the level of the respective Group company). All the decision-making committees of the companies of pbb Group include employees of pbb as members of the respective companies, thereby enabling an adequate involvement in all strategic decisions of the pbb Group. Furthermore, this allows that the risk-taking and risk management are uniformly applied in all companies of pbb Group. Moreover pbb has a risk control unit that is responsible for the uniform application of risk management within pbb Group. This ensures, that risk measurement procedures and risk reporting are consistent and risk indicators are comparable within pbb Group.

Disclosure frequency

According to Article 433 CRR institutions must verify whether it is necessary for them to disclose the relevant information more than once a year in full or in part. On 8 June 2015, Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) publicised circular letter 05/2015 (BA) regarding the need for a more frequent disclosure. This circular formally implements Guidelines EBA/GL/2014/14 of the European Banking Authority (EBA) of 23 December 2014. pbb Group meets the criterion of “the consolidated assets of the institution exceed € 30 billion” as per Title VI 18 b) of the BaFin circular, and it is therefore subject to a semi-annual disclosure, i.e. on 30 June and 31 December of any financial year. pbb Group’s IFRS consolidated assets as of 31 December 2016 amounted to € 62.6 billion (31 December 2015: € 66.8 billion).

Means of Disclosures

According to Article 434 (1) CRR, the Disclosure Report is publicised as an independent report on the website of pbb (www.pfandbriefbank.com) under Investor Relations / Mandatory Publications. European Central Bank (ECB), Deutsche Bundesbank and BaFin are informed of the time and the medium of the publication. Deutsche Pfandbriefbank AG is directly supervised by the ECB.

Methods and Regulations to Comply with Disclosure Requirements

According to Article 431 (3) CRR, pbb Group has adopted formal policies which are documented in a disclosure policy in order to comply with the disclosure requirements. This policy describes all material, inherent principles of disclosure as defined by Regulation (EU) 575/2013 (CRR), e. g. the kind and scope of disclosure including the use of so-called disclosure waivers, the adequacy of information, the disclosure medium and disclosure terms, the frequency of disclosure including decision criteria for the "appropriate" disclosure cycle, responsibilities as well as the integration of the disclosure process into bank-internal work processes and structures. Furthermore, the policy contains directives on the regular verification of the adequacy and practicality of disclosure practices applied at pbb Group, as well as defined disclosure standards and processes. The disclosure policy is verified and aligned with market requirements on a regular basis.

While the business processes and regulations implemented for the purpose of disclosure are subject to regular reviews by the internal audit function and to an external audit, the Disclosure Report is not verified by pbb Group’s auditors. However the Disclosure Report contains data which are also quoted in the publicised 2016 Annual Report of pbb Group.

Note:

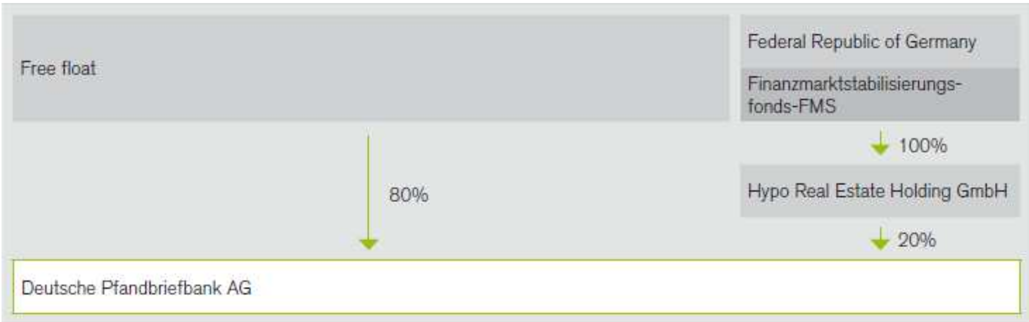
Numbers provided in the Disclosure Report are commercially rounded to millions. Due to rounding’s, the sums shown in the tables may slightly differ from the arithmetic total of the individual amounts shown.

1.1 Organisational and legal structure

Deutsche Pfandbriefbank AG (pbb) is the parent company of Deutsche Pfandbriefbank Group (pbb Group) and the ultimate parent company as per Article 4 (1) CRR of the regulatory group of institutions as defined in Section 10a KWG in conjunction with Article 11 et seq. CRR, and it is responsible for the compliance with regulatory disclosure requirements. pbb is a stock corporation under German law, registered in the Commercial Register of the Local Court of Munich, Germany (HRB 41054).

The free float is 80 %. The remaining 20 % are held by the Federal Republic of Germany, indirectly via the Financial Market Stabilisation Fund (Finanzmarktstabilisierungsfonds – "FMS") and Hypo Real Estate Holding GmbH (formerly: Hypo Real Estate Holding AG), with a holding obligation until 16 July 2017. The shareholder structure is shown on pbb's website under Investor Relations / Shares / Shareholder Structure, the voting rights notification provided by the shareholders pursuant to Section 21 et seq. of the German Securities Trading Act (Wertpapierhandelsgesetz, "WpHG") can be found under Investor Relations / Mandatory Publications / Notifications on Voting Rights.).

Figure 1: Shareholder structure



The pbb Group is represented at a total of 9 sales locations; The bank's headquarters are in Unterschleißheim, near Munich, Germany; in addition, pbb operates offices in Germany at 4 locations (Berlin, Duesseldorf, Fankfurt am Main/Eschborn and Hamburg). In its foreign core markets, it has branches in the 4 locations in London, Madrid, Paris and Stockholm. From its branches, it conducts a large part of its international financing activities.

Business Model and Strategy

The strategic business segments of pbb Group are Real Estate Finance (REF) and Public Investment Finance (PIF); the focus is on Pfandbrief eligible business. The geographic focus is on Germany, France, the United Kingdom, the Nordic countries and on selected Central and Eastern European countries. In addition to the European markets, pbb extended its business in the second half of 2016 by entering the US real estate market, where the bank is focusing on East coast metropolises, primarily in the form of co-financing with strategic partners. While pbb regularly reviews business opportunities outside the markets it currently serves, it remains committed to its core markets.

pbb's core business is medium- to long-term lending: pbb Group plays an important role in this area, supplying credit to the real estate sector and supporting the public sector with project financings for the provision and improvement of public infrastructure. pbb Group's focus is on primary client business. Besides traditional financing solutions tailored to clients' needs, the Group offers its clients derivatives for hedging risks associated with lending. pbb does not maintain a trading book for securities or derivatives portfolios held to realise short-term gains.

In the lending business, pbb Group either acts as a sole lender or, particularly for large-volume transactions, cooperates with financing partners. In this regard, the Group has a wide network of banking and other partners, including insurance companies and private equity firms. In this so-called syndicate business, when acting as arranger, the Group takes over the complete coordination between the syndicate and the borrower or, in the role of an Agent, deals with tasks in connection with the management of syndicated loans.

In addition, pbb Group acts as an underwriter, initially being the sole provider of financing and then selling parts of this loan to interested partners in the context of syndication.

Strategic Orientation

pbb Group's strategy focuses on sustainable business success. Crucial success factors are the assessment and appropriate pricing of credit risk in the lending business on the one hand, and the access to funding markets at adequate terms on the other. Managing the existing portfolio – so as to identify changing risks at an early stage and mitigate them by taking appropriate measures – is another important factor.

The Management Board has committed itself to further increasing profitability in 2017 by increasing strategic portfolios whilst running down existing non-strategic portfolios. Moreover, pbb intends to use the year 2017 to implement certain strategic decisions, including initiatives aimed at further diversifying its existing business in line with the bank's risk standards – as already seen during the second half of 2016, with pbb's entry into the US market. In addition, pbb Group intends to expand its value-creation chain, reviewing platforms and processes with a view to digitalising its business. The bank also wants to devise measures enabling it to react swiftly to regulatory changes. Finally, pbb will take specific action to counter future increases in its cost base.

Control System

pbb Group's internal management system is pursuing a sustainable enhancement in value of the Group considering aspects of risks and regulatory requirements. The key objective is to achieve a balanced risk/return ratio. Risks should be compatible with external and internal risk-bearing capacity guidelines generating an adequate return on capital.

Monitoring and stearing at pbb Group are based on a consistent and integrated key performance indicator system (KPI system), which assists executives in the management of the Group. The KPI system comprises the dimensions of profitability, growth in the strategic real estate finance and public investment finance portfolios, risk limitation and capital. Regular plan-actual comparisons and related analyses disclose the reasons for any deviations in the key performance indicators. Current market developments, such as the change on interest rate levels, are also displayed. In addition to strategic planning for the Bank as a whole, regular medium-term projections of profitability indicator and (stress) scenario forecasts enables the management has a comprehensive overview of the Group's future business development.

No changes were made to the internal management system year-on-year. Non-financial key performance indicators are not explicitly managed. The following financial key performance indicators have been defined:

Return on Equity After Tax

One key profitability indicator is the return on equity after tax. It is calculated by dividing IFRS net income/loss by the average IFRS equity available in the financial year excluding the revaluation reserve. Profit or loss before tax is a further financial key performance indicator. The aim is to increase it both by generating higher revenues and through strict cost discipline. Cost discipline and efficiency are monitored using the cost-income ratio, i. e. the ratio of general and administrative expenses to operating income.

Nominal Amount of Financing

The notional amount of the funding in the strategic Real Estate Finance (REF) and Public Investment Finance (PIF) segments is a significant factor influencing the future earning power and has therefore been redefined as an additional financial key performance indicator. The financing volume can be controlled, above all, by the volume of new business (including prolongations with maturities of more than one year), which also represent a financial key performance indicator. A present value approach is used for managing and calculating new business. In line with the management of the Bank as a whole, each new business transaction should make a positive value contribution to the Bank's overall income after the deduction of all costs (full cost approach).

Risk Management

Risk management is based on two risk-bearing capacity approaches, the going-concern approach and gone-concern approach. Management using the going-concern approach ensures that pbb Group can still meet the regulatory minimum capital ratios even after an adverse economic scenario, which occurs at a maximum of once every 20 years. The gone-concern approach, on the other hand, is based on the assumption that pbb Group, in the hypothetical event of the institute being liquidated, is able to fully service its unsubordinated debt instruments even in an extreme loss event. A precondition for demonstrating the risk-bearing capacity in both cases is that the risk covering potential exceeds the required economic risk capital. The methods and results of the risk-bearing capacity assessment and the methods used are described in detail in Chapter 4.2 "Economic Capital and Risk-Bearing Capacity".

Common Equity Tier 1 Ratio

The CET1 ratio, a key management parameter, is determined on a regular basis; it is calculated by dividing Common Equity Tier 1 (CET1) by risk-weighted assets (RWAs). The Advanced Internal Rating Based Approach (Advanced IRBA) is used to determine regulatory capital requirements for all material portfolios.

1.2 Corporate Governance Principles

Since its IPO in July 2015, the company has been obliged to declare the German Corporate Governance in accordance with Section 161 AktG. The compliance statement concerning the Federal Public Corporate Governance Code most recently dated 24 March 2017 can be found on the Company's website under Investor Relations / Mandatory Publications / Corporate Governance Kodex (only on German website available). Any updates of the statement filed after the reporting date can be found on pbb's website as well.

Furthermore, please refer to the report of the Supervisory Board publicised in pbb's 2016 Annual Report as well as the "Corporate Governance Statement pursuant to Section 289a HGB" including the Corporate Governance Report, which can also be found on pbb's website under The Company / Corporate Governance. These sources are particularly relevant for disclosure requirements as per Article 435 (2), Points (d) and (e) CRR regarding the risk committee and the information provided to the Management Board and the Supervisory Board, which is also described in Chapter 4.1 "General Organisation and Risk Management Principles".

Management Board and Supervisory Board Executive or Supervisory Functions

As at the reporting date, pbb's Management Board members hold 4 and pbb's Supervisory Board members hold 21 executive or supervisory functions. For details on the functions and mandates, please refer to Note 85 "Members of the Supervisory and of the Management Board" of pbb Group's 2016 Annual Report.

Selection of Management Board and Supervisory Board Members

As to the appointment of Management Board or Supervisory Board members, pbb has established lists of criteria which are described hereafter. The bank considers that the current officeholders meet these criteria, and the knowledge, skills and expertise of the Management Board and Supervisory Board members are published in the form of CVs on pbb's website under The Company / Management and The Company / Supervisory Board respectively.

List of Criteria for the Management Board

According to Section 25c KWG, managers of an institution must display technical qualifications and reliability, and they must dedicate sufficient time to their tasks. Technical qualifications mean that managers must have sufficient theoretical and practical knowledge in the business area concerned and he or she must have managerial experience.

- Functional competencies

  Candidates must have a high standard of experience in at least one business area of the bank, e. g. Public Investment Finance or Real Estate Finance (front or back office), alternatively in Corporate or Commercial Banking and ideally in selected Corporate Centre functions.

  Knowledge of the refinancing of banks is an asset.

  Potential candidates for a CFO or CRO position must have acquired professional knowledge in key areas obtained from board positions or important line management functions. This also applies to the capital market/treasury division.

- Industry competencies

  Candidates must have several years of experience in the finance industry, preferably in commercial or asset based banking.

- Tenure

  Candidates must be admitted as a manager of a bank or, when they are first appointed to the Management Board, their authorisation must be available without any extended waiting time.

  They must have long-term managerial experience obtained from board positions or important line management functions including long-term and broad managerial experience as well as experience in process and restructuring management respectively.

  They must display a strong entrepreneurial spirit as well as experience in dealing with entrepreneurial tasks including e. g. developing the business model and the strategy and/or performing business management tasks (preferably for a bank).

- Technical competencies

  According to Section 25c KWG Management Board members are required to have competencies in particular in the areas of strategic management, company development, loan responsibility, bank management, sales.

  In terms of loans, a sound judgment of loan decisions is of the essence. In this context, long-standing, qualified and responsible loan decision-making practice is required.

  As to bank management, knowledge and experience in the context of profit and risk control as well as methodological knowledge in the various bank management areas is highly relevant.

- Interpersonal skills

  High degree of persuasiveness and determination based on a thoughtful argumentation.

  Respectful and team-oriented leadership approach.

  Strong ability to establish and maintain sustainable, trust-based relationships with employees, peers as well as external stakeholders.

  Strong commitment to develop the company along with the ability to identify, implement and communicate required changes.

  Be a credible and integer representative of the bank in public, including relevant (customer) markets.

List of Criteria for the Supervisory Board

According to Section 25d KWG, the members of a Supervisory Board of an institution must be reliable, have the expertise required to control, assess and monitor the transactions carried out by the company concerned, and must dedicate sufficient time to their tasks. Candidates shall have the following competencies:

- Functional competencies

  Very good knowledge of the banking business as well as extensive, broad entrepreneurial experience.

  In-depth understanding of Annual Reports and reports provided to the Supervisory Board as well as of the regulatory environment of banks.

- Industry competencies

  Long-term experience in the financial industry, financial administration or control; several years of experience in a division of a bank are an asset.

- Tenure

  Long-standing practice in managing a company or an internationally operating bank / organisation / corporation.

  Alternatively, many years of practical experience in a leading position of a large company or a leading public authority position.

- Interpersonal skills

  Very good advisory skills, persuasiveness as well as diplomatic skills.

  Ability to build confidence along with a responsible performance of supervisory tasks.

- Other

  At least five members of the Supervisory Board, thereof at least three shareholder representatives, shall be independent as set out in clause 5.4.2 of the German Corporate Governance Code. As recommended by this Code, a member of the Supervisory Board shall not be considered to be independent if he/she has a personal or business relationship with pbb, its boards, a controlling shareholder or an affiliated company which may give rise to a material conflict of interest on a more than temporary basis. As to employee representatives, it is assumed that their independence is not affected by the fact that they hold the position of employee representatives and have an employment relationship at the same time.

- Chairman of the Supervisory Board

  Candidates must be admitted as a manager of a bank as defined by KWG and must have bank management experience acquired as a Chairman of the Board or have long-term experience as a Board member

- Chairman of the Audit Committee

  Special expertise in auditing or annual accounts auditing as defined by Section 100 (5) AktG

- Chairman of the Risk Management and Liquidity Strategy Committee

  Special expertise in the field of loans.

Member Diversity Strategy

Both Supervisory Board and Management Board consider that diversity matters when filling management positions, and they aim at an appropriate representation of the underrepresentated gender (as required by Sections 76 (4), 111 (5) AktG). The Supervisory Board has also decided on the following targets that apply until 30 June 2017 and are satisfied:

- Target percentage of women in the Supervisory Board: 30 %
- Target percentage of women in the Management Board: 0 %

At present women account for 33.3 % of the Supervisory Board and 0 % of the Management Board. For the period after 30 June 2017, the Supervisory Board is currently targeting a 20 % share of the Management Board in accordance with the planning objective adopted in 2015. For further explanations regarding the provisions pursuant to Sections 76 (4) and 111 (5) AktG, we refer to the statement on corporate governance pursuant to Section 289a HGB published in the Annual Report 2016.

1.3 Remuneration Policy

Information on the remuneration policy and remuneration practice as per Article 450 CRR can be found in the “Compensation Reports” which is publicised on the website of pbb Group under The Company / Corporate Governance / Compensation Reports as well as in Section “Remuneration Report” of the 2016 Annual Report of pbb Group.

2 Regulatory and Commercial Consolidation

2.1 Scopes of consolidation

According to Part 8 of CRR, companies which form part of the Group as defined in Section 10a KWG in conjunction with Article 11 et seq. CRR (regulatory consolidation scope) must be considered in the Disclosure Report. By contrast, the commercial consolidation scope is based on international accounting standards as shown in the Annual Report of pbb Group. As of 31 December 2016, there is no difference between the regulatory scope of consolidation according to Articles 18 to 24 CRR and the commercial scope of consolidation for pbb's consolidated financial statement.

According to Article 436, Points (a) and (b) CRR, the following Table "Regulatory and Commercial Consolidation Scope" shows the regulatory and commercial consolidation scope of pbb's subsidiaries. The various subsidiaries are divided according to the company type in line with the definitions provided in Article 4 CRR in conjunction with Section 1 KWG.

Table 1: Regulatory and Commercial Consolidation Scope

Companies	Purpose of business	Consolidation according to regulatory treatment: Full	Consolidation according to regulatory treatment: Deduction	Consolidation according to regulatory treatment: Risk-weighted equity holdings	Consolidation according to the accounting standard: Full
Credit institutions	**Purpose of business**				
Domestic					
Deutsche Pfandbriefbank AG Munich, Germany	Credit institution	x			x
International					
none	-				
Financial enterprises					
Domestic					
none	-				
International					
Hypo Real Estate Capital Japan Corp. i.L. Tokyo, Japan	in liquidation	x			x
Hypo Real Estate International LLC I Wilmington, USA	Funding	x			x
Hypo Real Estate International Trust I Wilmington, USA	Funding	x			x
Ancillary banking services enterprises					
Domestic					
IMMO Immobilien Management GmbH & Co. KG Munich, Germany	Real estate company	x			x
Immo Invest Real Estate GmbH Munich, Germany	Salvage acquisition	x			x
Ragnarök Vermögensverwaltung AG & Co. KG Munich, Germany	Real estate company	x			x
International					
none	-				
Other enterprises					
Domestic					
none	-				
International					
Hypo Real Estate Capital India Corp. Private Ltd. i.L. Mumbai, India	in liquidation	x			x
RPPSE Espacio Oviedo S.L.U. Madrid, Spain	Salvage acquisition	x			x

As at the reporting date, the regulatory consolidation scope comprised pbb as parent company of the group of institutions as well as 8 subordinate companies. The total regulatory capital and the consolidated risk positions according to CRR are determined based on the IFRS financial statement as per Section 10a (5) KWG.

pbb prepared its consolidated financial statement as of 31 December 2016 in line with Regulation (EC) No. 1606/2002 of the European Parliament and of the Council of 19 July 2002 based on international financial reporting standards (IFRS). The separate financial statements of consolidated German and foreign companies are included in the consolidated financial statement based on uniform accounting and valuation principles.

Derogation provided for in Article 19 (1) CRR

pbb Group avails itself of the derogation provided for in Article 19 (1) CRR in conjunction with Section 31 (3) KWG for one subsidiary company, a financial company. This company is not part of the regulatory consolidation scope:

- Immo Immobilien Management Beteiligungsgesellschaft mbH, Munich, Germany

Against the background of their secondary financial significance, this company is not part of the regulatory or the commercial consolidation. From a regulatory perspective, it is subject to risk weighting. The effects of the contractual relationships of group companies with this non-consolidated subsidiary have been taken into consideration in the consolidated financial statement as required by the Commercial Code. The shares in this non-consolidated companiy are shown as AfS (Available for Sale) financial assets.

pbb as the ultimate parent company of pbb Group informs both German Bundesbank and BaFin on an annual basis of companies which are not part of the regulatory consolidation.

Changes in the Financial Year

Hayabusa Godo Kaisha i.L., Tokyo, a special-purpose vehicle in connection with a salvage acquisition, was liquidated at the end of June 2016. After the company was liquidated, it was no longer taken into account both in the regulatory and commercial area of consolidation. Within the scope of liquidtion, the remaining assets and liabilities in the company fall to Hypo Real Estate Capital Japan Corp. i.L., Tokyo, whose liquidation commenced on 31 August 2016 and which is expected to be completed in 2017.

The company GfI-Gesellschaft für Immobilienentwicklung und -verwaltung mbH i.L., Stuttgart, was liquidated on 14 December 2016, For this company, a provider of ancillary services, pbb Group adopted the exemption under Article 19 (1) CRR in conjnction with Section 31 (3) KWG.

Special-purpose Vehicles

As of 31 December 2016, pbb Group uses the following three special purpose entities. Since the financial year 2016 no new special-purpose vehicle was actively used.

- Hypo Real Estate International LLC I, Wilmington, USA
- Hypo Real Estate International Trust I, Wilmington, USA
- RPPSE Espacio Oviedo S.L.U., Madrid, Spain

In general special-purpose vehicles are used to isolate assets from operational companies so as to be (largely) insolvency-proof and to allow a more convenient use of these assets when they are needed as they often serve as collateral. Within the framework of its business activities, pbb Group uses special-purpose vehicles in particular to mitigate risks.

The active special-purpose vehicles mainly have the following objectives:

- group refinancing
- salvage acquisitions of mortgaged property

The three special-purpose vehicles are part of both the regulatory and the commercial consolidation scopes.

Subsidiaries with Capital Deficits

A capital deficit is the amount by which the own funds of a subsidiary which is not consolidated fall below the regulatory capital as per Article 92 CRR in conjunction with Article 465 CRR. As in the previous year, pbb Group did not hold shares in any subsidiaries as of 31 December 2016 which were deducted from liable equity (deduction method) where these subsidiaries were subject to capital deficits as defined in Article 436 (d) CRR and were not included in the consolidation.

Transfer of Own Funds or Repayment of Liabilities

Within pbb Group, there are no obvious legal or factual barriers to the transfer of own funds or the repayment of liabilities by the parent company. pbb, which is critical for the financial stability of the group, is headquartered in Germany. As in the previous year, no transfer of own funds and no repayment of liabilities as defined by Article 7 (1), Point (a) CRR took place in reporting year 2016.

2.2 Risk position values and Reported book values

For disclosure pursuant to Part 8 of the CRR, described in the previous chapter 2.1 "Scope of Consolidation" the regulatory scope of consolidation pursuant to Articles 18 to 24 CRR is decisive. The two following tables in accordance with Article 436 (b) CRR in conjunction with EBA Guidelines EBA/GL/2016/11 show the reconciliation of balance sheet carrying amounts (IFRS) in accordance with the pbb Consolidated Financial Statements as of 31 December 2016 to the commercial scope of consolidation of the regulatory risk position values (exposure at default; EAD) according to the COREP Report of Own Funds and Own Funds Requirements using the regulatory scope of consolidation. In addition, the distribution of the amounts is shown for various types of risk.

Table 2: Regulatory and Commercial Consolidation and Reconciliation to Risk types (EU LI1)

All figures in € million

EU LI1	Carrying amounts (IFRS) in acc. with consolidated financial statements 2016 (Commercial Consolidation Scope)	Carrying amounts (IFRS) (Regulatory Consolidation Scope)	Carrying amounts (IFRS) of individual positions by risk types				
			Credit Risk	Counterparty credit risk	Securitisation	Market risk	Not subject to capital requirements or subject to deduction from capital
	a	b	c	d	e	f	g
Assets							
Cash reserve	1,136	1,136	1,136	-	-	6	-
Trading assets	1,089	1,089	-	1,089	-	105	-
Loans and advances to other banks	2,841	2,841	803	2,038	-	51	-
Loans and advances to customers	41,146	41,146	41,146	-	-	7,331	-
Allowances for losses on loans and advances	-130	-130	-130	-	-	-60	-
Valuation adjustment from portfolio hedge accounting	2	2	2	-	-	-	-
Financial investments	12,845	12,845	12,845	1,935	-	2,134	-
Property and equipment	8	8	8	-	-	-	-
Intangible assets	24	24	-	-	-	-	24
Other assets	3,550	3,550	58	3,492	-	35	-
Income tax assets	118	118	104	-	-	-	14
Total assets	**62,629**	**62,629**	**55,972**	**8,554**	**0**	**9,602**	**38**
Liabilities							
Liabilities to other banks	3,179	3,179	-	2,681	-	-	498
Liabilities to customers	9,949	9,949	-	277	-	20	9,672
Securitised liabilities	40,381	40,381	-	-	-	2,351	40,381
Valuation adjustment from portfolio hedge accounting	1	1	-	-	-	-	1
Trading liabilities	1,355	1,355	-	1,355	-	65	-
Provisions	242	242	-	-	-	-	242
Other liabilities	3,778	3,778	-	3,719	-	263	59
Income tax liabilities	59	59	-	-	-	-	59
Subordinated capital	886	886	-	-	-	-	886
Liabilities	**59,830**	**59,830**	**0**	**8,032**	**0**	**2,699**	**51,798**
Equity	2,799	2,799	-	-	-	-	2,799
Total equity and liabilities	**62,629**	**62,629**	**0**	**8,032**	**0**	**2,699**	**54,597**

As of the reporting date, the pbb Group had exactly the same level of regulatory and commercial consolidation, There are no deviations due to a different composition of the consolidation groups.

In accordance with the business model of pbb Group, which focuses on commercial real estate financing and public investment financing, the assets are primarily subject to a capital requirement for credit risks (credit risks and counterparty credit risks). In addition, transactions concluded in foreign currency are subject to an equity requirement for market risks (risk of changes in foreign exchange rates). pbb Group has no trading book for portfolios with short-term profit taking, which is why the transactions with regard to the market risk are exclusively subject to the capital requirement for the foreign currency risk of the banking book.

In addition, certain assets / liabilities are allocated to more than one type of risk. For example, securities lending / repo transactions (repos and reverse repos) are subject to both a credit risk and a counterparty credit risk. This applies both to the asset positions, e. g. loans and advances to credit institutions (cash receivables from reverse repos, cash collaterals), financial investments (repos / securities) and to liability positions, e. g. liabilities to credit institutions and customers (equivalent values from repos, cash collaterals received). In connection with its derivatives and repo transactions, pbb uses framework agreements at normal market conditions, including the collateral arrangements, for this purpose. The framework contracts used for derivatives as well as for repos include a set-off clause in the event of premature termination of transactions, e. g. due to default or insolvency (so-called close-out netting). As part of the netting process, the credit risk is reduced to a single net claim against the contractual partner. In this respect, the counterparty credit risk in the table above refers to both assets and liabilities.

Table 3: Differences between risk position values and IFRS book values (EU LI2)

All figures in € million

	EU LI2	Total	Positions by risk types:			
			Credit Risk	Counterparty credit risk	Securitisation	Market risk
		a	b	c	d	e
1	**Assets carrying value amounts (IFRS) under the scope of regulatory consolidation (as per template EU LI1)**	**62,629**	**55,972**	**8,554**	**-**	**9,602**
2	Liabilities Carrying value amounts (IFRS) under the regulatory scope of consolidation (as per template EU LI1)	62,629	-	8,032	-	2,699
3	Total net amount (IFRS) under the regulatory scope of consolidation	-	55,972	522	-	6,903
4	Off-balance-sheet amounts [1)]	3,973	3,013	-	-	-
5	Differences due to the recognition of the Credit Conversion Factor (CCF) for committed undrawn credit lines	-960	-	-	-	-
6	Differences due to risk-reducing recognition of approved contractual netting agreements for derivative financial instruments and securities financing transactions (SFT), taking into account premiums for potential future replacement value for derivative transactions (regulatory add-on)	-5,049	-	-6,984	-	-
7	Differences due to the consideration of value adjustments resulting from the application of the internal rating-based approach (IRBA)	139	139	-	-	-
8	Differences resulting from the calcualtion of the net foreign currency position in accordance with the market risk standard approach persuant to Article 325 et seq. CRR	-	-	-	-	-9,256
9	Differences due to "Prudential Filters" - calculation of additional value adjustments for fair value-based financial instruments (Additional Value Adjustments; AVA)	-	-	-	-	-
10	Other (e.g. deduction items from equity)	-32	6	-	-	-
10	**Exposure amounts considered for regulatory purposes**	**60,700**	**59,130**	**1,570**	**0**	**346**

1) Off-balance sheet items are shown in column (a) before and in columns (b) to (e) after recognition of the Credit Conversion Factor (CCF).

The assets according to the pbb consolidated financial statements (IFRS) as at 31 December 2016 amount to € 62,629 million. The regulatory risk positions (Exposure at Default, EAD), taking into account regulatory adjustments, are based on the IFRS consolidated financial statements. The risk position values amount to € 60,700 million as of 31 December 2016.

The main causes for the differences between the carrying amounts (IFRS) according to the pbb consolidated financial statements as of 31 December 2016, persuant to the regulatory scope of consolidation and the regulatory exposure parameters (Exposure at Default, EAD) are:

- the consideration of off-balance sheet items - contingent liabilities from guarantees and indemnity agreements (fulfillment guarantees and warranties) as well as other obligations arising from irrevocable loan commitments (mortgage and municipal loans as well as guarantee credits) – after accounting for credit conversion factors (Credit Conversion Factor, CCF) and credit risk standardised approach (CRSA) after taking into account credit risk adjustments (provisions).

  In pbb Group, irrevocable loan commitments are the most important part of off-balance-sheet items. This includes all obligations of a borrower, which at a later date grant a credit and thus lead to a credit risk. These are mainly loans that are not fully paid out.

- The risk-minimising recognition of accepted contractual netting agreements for derivative financial instruments and securities financing transactions (SFT), for derivative transactions, including the mark-ups for the potential future replacement value (regulatory add-on).

  On the balance sheet, on the other hand, derivatives - with the exception of the balance sheet netting of derivatives concluded with Eurex Clearing - can not be offset since they have different terms (e. g. different maturities or currency underlyings). In accordance with the IFRS accounting standards,.derivatives are shown in the balance sheet.

- The valuation of allowances (singele loan loss provisions and portfolio-based risk provisions) for risk positions using the advanced approach (IRBA) based on internal bank rating procedures. In contrast to the Credit Risk Standard Approach (CRSA), general and specific credit risk adjustments are not deducted from the balance sheet book value in the IRB-approach, but are taken into account in the value adjustment comparison with the expected loss amounts (EL).

- Differences in the valuations resulting from the calculation of the net foreign currency position according to the market risk standard approach in accordance with Article 325 et seq. CRR. The regulatory foreign currency risk as shown in row 10 of the previous Table is calculated on the basis of the present value of the respective assets / liabilities, while the balance sheet carrying amounts according to lines 1 and 2 show assets and liabilities in foreign currencies.

- Items that are deducted from equity, such as intangible assets or a portion of the deferred tax assets (deferred tax assets, which are dependent on future profitability and do not result from temporary differences), are not included in the risk position values. They are included in the previous table under the item Other.

On the other hand, additional valuation adjustments (additional valuation adjustments (AVA) pursuant to Article 34 CRR in conjunction with Article 105 CRR with regard to the prudential valuation of financial instruments as well as so-called "Prudential Filters" pursuant to Articles 32, 33 and 35 CRR shall have no effect on the carrying amounts (IFRS) or the regulatory risk position values. These regulatory adjustments settle the balance sheet equity as determined by IFRS and lead to an increase / decrease in the regulatory capital.

pbb Group applies the simplified approach pursuant to Article 4 et seq. of the Delegated Regulation (EU) 2016/101 of 26 October 2015 to determine the additional valuation adjustments (AVA) for financial instruments recognised at fair value. Institutions may use this approach if the sum of the absolute value of assets and liabilities recognised at fair value in accordance with Article 4 (1) less the possibility of offsetting persuant to Article 4 (2) of the EU Regulation is less than € 15 billion. For pbb Group, this absolute value amounted to € 6.4 billion as of the reporting date.

3 Own Funds and Assets

3.1 Structure of Own Funds

Regulatory own funds are decisive for the compliance with regulatory capital requirements and thus for capital requirements for credit risks, market risks, operational risks, settlement risks as well as CVA risks, and they are determined according to Part 2 of CRR. Regulatory own funds are composed of Common Equity Tier 1 (CET1) capital, additional Tier 1 (AT1) capital as well as Tier 2 (T2) capital.

When calculating its own funds, pbb Group considers the requirements for a prudent valuation according to Article 105 CRR in conjunction with. Article 34 CRR. pbb Group applies the Simplified Approach in accordance with Article 4 et seq. of the Delegated Regulation (EU) 2016/101 of 26 October 2015.

The following paragraphs deal with own funds for pbb Group on a consolidated basis according to Article 437 CRR in conjunction with the transitional provisions of Article 492 CRR.

According to Article 437 (1), Point (d) CRR in conjunction with Article 492 (3) and (4) CRR, the following Table showing the structure of own funds displays the type and amount of own funds of pbb Group as at the reporting date 31 December 2016 (31 December 2015) Own funds are calculated according to CRR. The amounts shown are based on the IFRS consolidated financial statement of pbb Group including regulatory adjustments. pbb is the direct or indirect main shareholder of shareholdings which are part of the consolidation scope.

Table 4: Structure of Own Funds

All figures in € million

No.	Capital instruments pbb Group	(A) Amount at disclosure date 31.12.2016	31.12.2015	(B) Regulation (EU) No 575/2013 Article reference	(C) Amounts subject to pre-Regulation (EU) No. 575/2013 treatment or prescribed residual amount of Regulation (EU) No 575/2013 31.12.2016	31.12.2015
	Common Equity Tier 1 (CET1) capital: Instruments and reserves					
1	Capital instruments and the related share premium accounts	2,017	2,017	26 (1), 27, 28, 29, EBA list 26 (3)	-	-
	of which: Subscribed capital	380	380	EBA list 26 (3)	-	-
	of which: Capital reserve	1,637	1,637	EBA list 26 (3)	-	-
2	Retained earnings	712	655	26 (1) (c)	-	-
3	Accumulated other comprehensive income (and other reserves, to include unrealised gains and losses under the applicable accounting standards)	-71	16	26 (1)	-	-
3a	Funds for general banking risk	-	-	26 (1) (f)	-	-
4	Amount of qualifying items referred to in Article 484 (3) and the related share premium accounts subject to phase out from CET1	-	-	486 (2)	-	-
4a	Public sector capital injections grandfathered until 1 January 2018	-	-	483 (2)	-	-
5	Minority Interests (amount allowed in consolidated CET1)	-	-	84, 479, 480	-	-
5a	Independently reviewed interim profits net of any foreseeable charge or dividend	-	-	26 (2)	-	-
6	**Common Equity Tier 1 (CET1) capital before regulatory adjustments**	**2,658**	**2,688**			
	Common Equity Tier 1 (CET1) capital: regulatory adjustments					
7	Additional value adjustments (negative amount)	-6	-14	34, 105	-	-
8	Intangible assets (net of related tax liability) (negative amount)	-15	-8	36 (1) (b), 37, 472 (4)	-10	-13

All figures in € million

No.	Capital instruments pbb Group	(A) Amount at disclosure date		(B) Regulation (EU) No 575/2013 Article reference	(C) Amounts subject to pre-Regulation (EU) No. 575/2013 treatment or prescribed residual amount of Regulation (EU) No 575/2013	
		31.12.2016	31.12.2015		31.12.2016	31.12.2015
9	Empty Set in the EU	-	-		-	-
10	Deferred tax assets that rely on future profitability excluding those arising from temporary differences (net of related tax liability where the conditions in Article 38 (3) are met) (negative amount	-8	-7	36 (1) (c), 38, 472 (5)	-6	-10
11	Fair value reserves related to gains or losses on cash flow hedges	-44	-87	33 (a)	-	-
12	Negative amounts resulting from the calculation of expected loss amounts	-42	-31	36 (1) (d), 40, 159, 472 (6)	-28	-43
13	Any increase in equity that results from securitised assets (negative amount)	-	-	32 (1)	-	-
14	Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	-5	-10	33 (b)	-3	-15
15	Defined-benefit pension fund assets (negative amount)	-	-3	36 (1) (e) , 41, 472 (7)	-	-4
16	Direct and indirect holdings by an institution of own CET1 instruments (negative amount)	-	-	36 (1) (f), 42, 472 (8)	-	-
17	Holdings of the CET1 instruments of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)	-	-	36 (1) (g), 44, 472 (9)	-	-
18	Direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution does not have a significant investment in those entities (amount above the 10% threshold and net of eligible short positions) (negative amount)	-	-	36 (1) (h), 43, 45, 46, 49 (2) (3), 79, 472 (10)	-	-
19	Direct, indirect and synthetic holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)	-	-	36 (1) (i), 43, 45, 47, 48 (1) (b), 49 (1) to (3), 79, 470, 472 (11)	-	-
20	Empty Set in the EU	-	-		-	-
20a	Exposure amount of the following items which qualify for a RW of 1250%, where the institution opts for the deduction alternative	-	-	36 (1) (k)	-	-
20b	of which: qualifying holdings outside the financial sector (negative amount)	-	-	36 (1) (k) (i), 89 to 91	-	-
20c	of which: securitisation positions (negative amount)	-	-	36 (1) (k) (ii) 243 (1) (b) 244 (1) (b) 258	-	-
20d	of which: free deliveries (negative amount)	-	-	36 (1) (k) (iii), 379 (3)	-	-
21	Deferred tax assets arising from temporary differences (amount above 10% threshold, net of related tax liability where the conditions in 38 (3) are met) (negative amount)	-	-	36 (1) (c), 38, 48 (1) (a), 470, 472 (5)	-	-
22	Amount exceeding the 15% threshold (negative amount)	-	-	48 (1)	-	-
23	of which: direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities	-	-	36 (1) (i), 48 (1) (b), 470, 472 (11)	-	-
24	Empty Set in the EU	-	-		-	-
25	of which: deferred tax assets arising from temporary differences	-	-	36 (1) (c), 38, 48 (1) (a), 470, 472 (5)	-	-
25a	Losses for the current financial year (negative amount)	-	-	36 (1) (a), 472 (3)	-	-
25b	Foreseeable tax charges relating to CET1 items (negative amount)	-	-	36 (1) (l)	-	-

All figures in € million

No.	Capital instruments pbb Group	(A) Amount at disclosure date 31.12.2016	(A) Amount at disclosure date 31.12.2015	(B) Regulation (EU) No 575/2013 Article reference	(C) Amounts subject to pre-Regulation (EU) No. 575/2013 treatment or prescribed residual amount of Regulation (EU) No 575/2013 31.12.2016	(C) 31.12.2015
26	Regulatory adjustments applied to Common Equity Tier 1 in respect of amounts subject to pre-CRR treatment	-	-		-	-
26a	Regulatory adjustments relating to unrealised gains and losses pursuant to Articles 467 and 468	14	5		-	-
26aa	thereof: Deductions and adjustment items for not realised losses from exposures to central governments categorised as Available for Sale (AfS) according to IAS 39	18	6	467	-	-
26ab	thereof: Deductions and adjustment items for other not realised losses	-4	-1	467	-	-
26b	Amount to be deducted from or added to Common Equity Tier 1 capital with regard to additional filters and deductions required pre CRR	-	-	481	-	-
27	Qualifying AT1 deductions that exceed the AT1 capital of the institution (negative amount)	-	-	36 (1) (j)	-	-
28	**Total regulatory adjustments to Common equity Tier 1 (CET1)**	**-105**	**-155**			
29	**Common Equity Tier 1 (CET1) capital**	**2,553**	**2,533**			
	Additional Tier 1 (AT1) capital: Instruments and reserves					
30	Capital instruments and the related share premium accounts	350	350	51, 52	-	-
31	of which: classified as equity under applicable accounting standards	-	-		-	-
32	of which: classified as liabilities under applicable accounting standards	350	350		-	-
33	Amount of qualifying items referred to in Article 484 (4) and the related share premium accounts subject to phase out from AT1	-140	-105	486 (3)	-	-
	Public sector capital injections grandfathered until 1 January 2018	-	-	483 (3)	-	-
34	Qualifying Tier 1 capital included in consolidated AT1 capital (including minority interests not included in row 5) issued by subsidiaries and held by third parties	-	-	85, 86, 480	-	-
35	of which: instruments issued by subsidiaries subject to phase out	-	-	486 (3)	-	-
36	**Additional Tier 1 (AT1) capital before regulatory adjustments**	**210**	**245**			
	Additional Tier 1 (AT1) capital: regulatory adjustments					
37	Direct and indirect holdings by an institution of own AT1 Instruments (negative amount)	-	-	52 (1) (b), 56 (a), 57, 475 (2)	-	-
38	Holdings of the AT1 instruments of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)	-	-	56 (b), 58, 475 (3)	-	-
39	Direct and indirect holdings of the AT1 instruments of financial sector entities where the institution does not have a significant investment in those entities (amount above the 10% threshold and net of eligible short positions) (negative amount)	-	-	56 (c), 59, 60, 79, 475 (4)	-	-
40	Direct and indirect holdings by the institution of the AT1 instruments of financial sector entities where the institution has a significant investment in those entities (amount above the 10% threshold net of eligible short positions) (negative amount)	-	-	56 (d), 59, 79, 475 (4)	-	-
41	Regulatory adjustments applied to additional tier 1 in respect of amounts subject to pre-CRR treatment and transitional treatments subject to phase out as prescribed in Regulation (EU) No 575/2013 (i.e. CRR residual amounts)	-24	-36		-	-

All figures in € million

No.	Capital instruments pbb Group	(A) Amount at disclosure date		(B) Regulation (EU) No 575/2013 Article reference	(C) Amounts subject to pre-Regulation (EU) No. 575/2013 treatment or prescribed residual amount of Regulation (EU) No 575/2013	
		31.12.2016	31.12.2015		31.12.2016	31.12.2015
41a	Residual amounts deducted from Additional Tier 1 capital with regard to deduction from Common Equity Tier 1 capital during the transitional period pursuant to article 472 of Regulation (EU) No 575/2013	-24	-36	472, 472 (3) (a), 472 (4), 472 (6), 41a, 41b, 472 (8) (a), 472 (9), 472 (10) (a), 472 (11) (a)	-	-
41aa	of which: intangibles	-10	-13		-	-
41ab	of which: shortfall of provisions to expected losses calculated according to the IRB-Approach	-14	-23		-	-
41b	Residual amounts deducted from Additional Tier 1 capital with regard to deduction from Tier 2 capital during the transitional period pursuant to article 475 of Regulation (EU) No 575/2013	-	-	477, 477 (3), 477 (4) (a)	-	-
41c	Amount to be deducted from or added to Additional Tier 1 capital with regard to additional filters and deductions required pre- CRR	-	-	467, 468, 481	-	-
42	Qualifying T2 deductions that exceed the T2 capital of the institution (negative amount)	-	-	56 (e)	-	-
43	**Total regulatory adjustments to Additional Tier 1 (AT1) capital**	**-24**	**-36**			
44	**Additional Tier 1 (AT1) capital**	**186**	**209**			
45	**Tier 1 capital (T1 = CET1 + AT1)**	**2,739**	**2,742**			
	Tier 2 (T2) capital: Instruments and reserves					
46	Capital instruments and the related share premium accounts	216	230	62, 63	-	-
47	Amount of qualifying items referred to in Article 484 (5) and the related share premium accounts subject to phase out from T2	163	190	486 (4)	-	-
	Public sector capital injections grandfathered until 1 January 2018	-	-	483 (4)	-	-
48	Qualifying own funds instruments included in consolidated T2 capital (including minority interests and AT1 instruments not included in rows 5 or 34) issued by subsidiaries and held by third parties	-	-	87, 88, 480	-	-
49	of which: instruments issued by subsidiaries subject to phase out	-	-	486 (4)	-	-
50	Credit risk adjustments	-	-	62 (c) & (d)	-	-
51	**Tier 2 (T2) capital before regulatory adjustments**	**379**	**421**			
	Tier 2 (T2) capital: regulatory adjustments					
52	Direct and indirect holdings by an institution of own T2 instruments and subordinated loans (negative amount)	-	-	63 (b) (i), 66 (a), 67, 477 (2)	-	-
53	Holdings of the T2 instruments and subordinated loans of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)	-	-	66 (b), 68, 477 (3)	-	-
54	Direct and indirect holdings of the T2 instruments and subordinated loans of financial sector entities where the institution does not have a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)	-	-	66 (c), 69, 70, 79, 477 (4)	-	-
55	Direct and indirect holdings by the institution of the T2 instruments and subordinated loans of financial sector entities where the institution has a significant investment in those entities (net of eligible short positions) (negative amount)	-	-	66 (d), 69, 79, 477 (4)	-	-

All figures in € million

No.	Capital instruments pbb Group	(A) Amount at disclosure date 31.12.2016	(A) Amount at disclosure date 31.12.2015	(B) Regulation (EU) No 575/2013 Article reference	(C) Amounts subject to pre-Regulation (EU) No. 575/2013 treatment or prescribed residual amount of Regulation (EU) No 575/2013 31.12.2016	(C) 31.12.2015
56	Regulatory adjustments applied to tier 2 in respect of amounts subject to pre-CRR treatment and transitional treatments subject to phase out as prescribed in Regulation (EU) No 575/2013 (i.e. CRR residual amounts)	-14	-23		-	-
56a	Residual amounts deducted from Tier 2capital with regard to deduction from Common Equity Tier 1 capital during the transitional period pursuant to article 472 of Regulation (EU) No 575/2013	-14	-23	472, 472(3)(a), 472 (4), 472 (6), 472 (8)(a), 472 (9), 472 (10)(a), 472 (11)(a)	-	-
56aa	of which: shortfall of provisions to expected losses calculated according to the IRB-Approach	-14	-23		-	-
56b	Residual amounts deducted from Tier 2 capital with regard to deduction from Additional Tier 1 capital during the transitional period pursuant to article 475 of Regulation (EU) No 575/2013	-	-	475, 475 (2) (a), 475 (3), 475 (4)(a)	-	-
56c	Amount to be deducted from or added to Tier 2 capital with regard to additional filters and deductions required pre CRR	-	-	467, 468, 481	-	-
57	**Total regulatory adjustments to Tier 2 (T2) capital**	**-14**	**-23**			
58	**Tier 2 (T2) capital**	**366**	**398**			
59	**Total capital (TC = T1 + T2)**	**3,105**	**3,140**			
59a	Risk weighted assets in respect of amounts subject to pre-CRR treatment and transitional treatments subject to phase out as prescribed in Regulation (EU) No 575/2013(i.e. CRR residual amounts)	-	-		-	-
60	**Total risk weighted assets**	**13,113**	**13,402**			
	Capital ratios and buffers					
61	Common Equity Tier 1 (as a percentage of risk exposure amount)	19.5%	18.9%	92 (2) (a), 465	-	-
62	Tier 1 (as a percentage of risk exposure amount)	20.9%	20.5%	92 (2) (b), 465	-	-
63	Total capital (as a percentage of risk exposure amount)	23.7%	23.4%	92 (2) (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 the systemically important institution buffer (G-SII or O-SII buffer), expressed as a percentage of risk exposure amount)	0.708%	-	CRD 128, 129, 130	-	-
65	of which: capital conservation buffer requirement	0.625%	-		-	-
66	of which: countercyclical buffer requirement	0.083%	-		-	-
67	of which: systemic risk buffer requirement	-	-		-	-
67a	of which: Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer	-	-	CRD 131	-	-
68	Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)	15.0%	14.4%	CRD 128	-	-
69	[non relevant in EU regulation]	-	-		-	-
70	[non relevant in EU regulation]	-	-		-	-
71	[non relevant in EU regulation]	-	-		-	-
	Amounts 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 investment in those entities (amount below 10% threshold and net of eligible short positions)	-	-	36 (1) (h), 45, 46, 472 (10) 56 (c), 59, 60, 475 (4) 66 (c), 69, 70, 477 (4)	-	-

All figures in € million

No.	Capital instruments pbb Group	(A) Amount at disclosure date 31.12.2016	(A) Amount at disclosure date 31.12.2015	(B) Regulation (EU) No 575/2013 Article reference	(C) Amounts subject to pre-Regulation (EU) No. 575/2013 treatment or prescribed residual amount of Regulation (EU) No 575/2013 31.12.2016	(C) 31.12.2015
73	Direct and indirect holdings by the institution of the CET 1 instruments of financial sector entities where the institution has a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	-	-	36 (1) (i), 45, 48, 470, 472 (11)	-	-
74	Empty Set in the EU	-	-		-	-
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)	57	66	36 (1) (c), 38, 48, 470, 472 (5)	-	-
	Applicable caps on the inclusion of provisions in Tier 2					
76	Credit risk adjustments included in T2 in respect of exposures subject to standardized approach (prior to the application of the cap)	-	-	62	-	-
77	Cap on inclusion of credit risk adjustments in T2 under standardised approach	3	3	62	-	-
78	Credit risk adjustments included in T2 in respect of exposures subject to internal ratings-based approach (prior to the application of the cap)	-	-	62	-	-
79	Cap for inclusion of credit risk adjustments in T2 under internal ratings-based approach	68	71	62	-	-
	Capital instruments subject to phase-out arrangements (only applicable between 1 Jan 2013 and 1 Jan 2022					
80	Current cap on CET1 instruments subject to phase out arrangements	-	-	484 (3), 486 (2) & (5)	-	-
81	Amount excluded from CET1 due to cap (excess over cap after redemptions and maturities)	-	-	484 (3), 486 (2) & (5)	-	-
82	Current cap on AT1 instruments subject to phase out arrangements	210	245	484 (4), 486 (3) & (5)	-	-
83	Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)	140	105	484 (4), 486 (3) & (5)	-	-
84	Current cap on T2 instruments subject to phase out arrangements	163	190	484 (5), 486 (4) & (5)	-	-
85	Amount excluded from T2 due to cap (excess over cap after redemptions and maturities)	67	65	484 (5), 486 (4) & (5)	-	-

Own funds as shown in the Table are based on COREP reporting of Own Funds and Own Funds Requirements of pbb Group as at the reporting date 31 December 2016 (including the profit for the year 2016 and after deduction of the dividend proposed by the Management Board and the Supervisory Board in the amount of € 1.05 per share entitled to dividend, subject to approval by the Annual General Meeting).

Tier 1 capital

Tier 1 capital as per CRR generally consists of Common Equity Tier 1 (CET1) capital and Additional Tier 1 (AT1) capital. Common equity Tier 1 capital consists of equity according to the IFRS financial statements adjusted for regulatory adjustments. In addition, under certain conditions hybrid capital issues may be included in the Additional Tier 1 capital. The composition of the balance sheet equity according to IFRS is described in pbb Group’s 2016 Annual Report.

Common Equity Tier 1 capital

As of 31 December 2016, the conditions for Common Equity Tier 1 capital according to Articles 26 to 50 CRR were applicable.

The subscribed capital (share capital) of pbb as of 31 December 2016 still amounted to € 380 million and was divided into 134,475,308 no-par value ordinary bearer shares with a computed share in the subscribed capital (share capital) of € 2.83 per share.

Common Equity Tier 1 capital is based on the components of the IFRS balance sheet equity amounting € 2,799 milion which includes the subscribed capital, capital reserve, retained earnings and other reserves as well as the net profit in 2016 of € 197 million. The Common Equity Tier 1 capital before regulatory adjustments and after deduction of the suggested dividend pay-out by Management Board and Supervisary Board of € 1.05 per share with the qualification for dividend amounted € 2,658 million.

Regulatory Adjustments

According to CRR, various items are deducted from Common Equity Tier 1 (CET1) capital before regulatory adjustments amounting to € 2,658 million:

- Value adjustments based on prudent valuation requirements amounting to € 6 million are fully deducted from Common Equity Tier 1 capital. However at the same time they serve as additional value adjustments as defined in Article 159 CRR, thereby reducing the value adjustment deficit.

  Prudent valuation is required based on Article 34 CRR. Institutions with fair valued items up to a limit of € 15 billion (after deducting items which are not relevant for equity) may use, according to Article 4 of EBA/RTS/2014/06, a simplified approach. pbb Group benefits from this scheme. According to Article 6 of this operating standard, a flat amount of 0.1 % of fair valued portfolios is deducted (again after deducting items which are not relevant for equity).

- According to Article 37 CRR, intangible assets amounting to € 25 million are fully deductible from the Tier 1 capital, however based on the Grandfathering provisions applicable as of 31 December 2016 only 60 %, i.e. € 15 million, will be deducted. The remaining 40 % i.e. € 10 million are deducted from the additional Tier1 capital (AT1) according to the Grandfathering regulations.

- As of 31 December 2016 deductions of deferred tax assets amounted to € 8 million, i.e., 60 % of € 14 million of deferred tax assets according to the Grandfathering provisions. These do not result from temporary differences after offsetting deferred tax liabilities. Deferred tax assets of € 56 million resulting from temporary differences are risk weighted at 250 % according to Article 48 (4) CRR.

- The cash flow hedge reserve of € 44 million is fully set off according to Article 33 CRR.

- If loss allowances display a value adjustment deficit as compared with the expected loss, this has to be deducted from the Common Equity Tier 1 capital provided that the bank concerned applies the Internal Ratings-Based Approach (IRBA) according to CRR (cf. Article 159 CRR). Of the deficit of € 70 million as of 31 December 2016, 60 %, i.e. € 42 million, are deducted from the Common Equity Tier 1 capital due to the Grandfathering provisions. Half of the remainder of € 28 million is deducted from Additional Tier 1 capital and Tier 2 capital, i.e. € 14 million each.

- Of fair value gains and losses arising from the institution's own credit risk related to derivative liabilities amounting to € 8 million (Debt Value Adjustments, DVA) 60 %, i.e. € 5 million, are deducted from the Common Equity Tier 1 capital due to the Grandfathering provisions. This deduction is based on Article 33 (1), Point (c) CRR.
- According to Article 34 CRR, the AfS reserve is part of the regulatory Tier 1 capital, irrespective of its sign. However, the amount of € -36 million as at 31 December 2016 is again allocated to Common Equity Tier1 by 40 %, i.e. € 14 million, as a result of the Grandfathering provisions of Articles 467 and 468 CRR.

  The special provision under Articles 467 and 468 CRR concerning the risk positions against "Available for Sale" central governments, which contained an increased grandfathering rate of 100 %, was deleted by the supervisory authority in 2016.

Altogether, Common Equity Tier 1 (CET1) capital of pbb Group as of 31 December 2016, including the 2016 net profit and after deducting the proposed dividend, subject to the approval of the Annual General Meeting, amounted to € 2,553 million (31 December 2015: € 2,533 million). The main features of Common Equity Tier 1 instruments issued by pbb Group according to Article 437 (1), Point (b) CRR are described in Chapter 10 "Notes" of this Disclosure Report.

Additional Tier 1 capital

The Tier 1 capital of pbb Group consists of Common Equity Tier 1 (CET1) capital as well as Additional Tier 1 (AT1) capital as far as the provisions of Articles 52 to 54 CRR are met. These are hybrid capital instruments. The term hybrid capital instrument specifically means the issuance of so-called "preferred securities" by special-purpose vehicles which have been specifically established for this purpose. As in the previous year, preferred securities of € 350 million were issued by a special-purpose vehicle as of 31 December 2016.

Table 5: Additional Tier 1 (AT1) capital – Capital Instruments

Issuer	Parent company	Year of issue	Type	Nominal amount in € million	Interest rate in %	Maturity	First call date Issuer
Hypo Real Estate International Trust I	Deutsche Pfandbriefbank AG	2007	Preferred Securities	350	5.864	indefinite	2017 1)
Total				**350**			

1) The bonds of Deutsche Pfandbriefbank AG on their emission vehicle issued emission is - after the first call date - terminable at any other interest payment date by the Deutsche Pfandbriefbank AG, subject to approval by the ECB.

The so-called hybrid capital has characteristics of both equity and debt. Using a suitable combination of these features, the capital can be optimally aligned with investors' and borrowers' interests, thereby allowing for an ideal structuring.

Hybrid instruments differ from classical Tier 2 capital in that they are subject to more stringent maturity requirements. What is more, in the event of bankruptcy, hybrid Tier 1 capital instruments may only be satisfied once the Tier 2 capital (longer-term subordinated liabilities) has been paid back. Other than traditional Tier 1 capital instruments, hybrid instruments have a profit entitlement in the form of a fixed or variable interest, based on the existence of a net profit. Furthermore, hybrid capital may be issued for an indefinite period or as long-term issues.

The securities were issued in 2007 and are subject to a fixed interest rate in line with market rates up until the possible date of termination by the bank. Thereafter they are subject to a floating interest rate including an interest step up. The issued securities meet the following requirements according to the "Sydney Declaration" of the Basle Committee for Banking Supervision, i.e.

- they do not contain any interest accumulation provisions
- under a bankruptcy, they are only served once the Tier 2 capital (subordinated liabilities) has been paid back
- they have an unlimited term and cannot be terminated by the investor
- they are subject to just one moderate interest rate adjustment provision in conjunction with a termination right in favor of the debtor which can be first used 10 years after the issue date
- they are issued and fully paid in
- they are available for the company on an ongoing basis in order to cover for losses.

pbb's issue of € 350 million is subject to a right of termination on the part of the bank in 2017 in conjunction with a step up. According to the transitional provisions in Article 489 CRR, a certain percentage of the amount of € 350 million qualifies as Additional Tier 1 capital and this percentage falls by 10 % annually, i.e. as of 31 December 2016, 60 % or. € 210 million are qualified as Additional Tier 1 capital. The portion of 40 % or € 140 million that is no longer eligible for inclusion in 2016 can be included in the grandfathering portfolio of the Tier 2 capital, as far as the upper limit of 60 % of the limit of 60 % of the recog-nisable amount was not used as of 31 December 2012.

Thus the Additional Tier 1 (AT1) capital before regulatory adjustments of pbb Group amounts € 210 million the remaining € 140 million are set off against the Tier 2 capital.

Regulatorische Anpassungen

Of these € 210 million, the following items are deducted. Based on the Grandfathering provisions, these items must not be deducted from the Common Equity Tier 1 capital but partly from Additional Tier 1 capital:

- € 10 million (40 % of intangible assets of € 24 million)
- € 14 million (20 % of the value adjustment deficit of € 70 million).

Altogether the Additional Tier 1 (AT1) capital of pbb Group as of 31 December 2016 amounted to € 186 million (31 December 2015: € 209 million). The main features of Additional Tier 1 capital issued by pbb Group according to Article 437 (1), Point (b) CRR are described in Chapter 10 "Notes" of this Disclosure Report.

Tier 2 capital

Tier 2 capital of pbb Group consists of long-term subordinated loans less regulatory adjustments to Common Equity Tier 1 capital which have to be applied to the Tier 2 capital due to transitional provisions. These adjustments imply a 20 % deduction for the value adjustment deficit. The provisions for the recognition of long-term subordinated loans according to Article 63 CRR are mostly complied with. For a few security issues the Grandfathering clause according to Article 490 CRR is applied.

Tier 2 instruments are subject to interest in line with market rates. The subordinated loans consist of the following issues (listed according to maturity).

Table 6: Tier 2 (T2) capital – Capital Instruments

Cons. No.	Issuer	Year of issue	Type	Nominal amount in € million	Interest rate in %	Maturity
1	Deutsche Pfandbriefbank AG	2007	Borrowers' note loan	10	4.795	2017
2	Deutsche Pfandbriefbank AG	2007	Borrowers' note loan	10	4.810	2017
3	Deutsche Pfandbriefbank AG	2006	Registered Bond	15	4.245	2017
4	Deutsche Pfandbriefbank AG	2006	Registered Bond	10	4.050	2018
5	Deutsche Pfandbriefbank AG	2008	Registered Bond	10	variable	2018
6	Deutsche Pfandbriefbank AG	2008	Registered Bond	15	variable	2018
7	Deutsche Pfandbriefbank AG	2008	Registered Bond	1	variable	2018
8	Deutsche Pfandbriefbank AG	2008	Registered Bond	6	variable	2018
9	Deutsche Pfandbriefbank AG	2008	Registered Bond	8	variable	2018
10	Deutsche Pfandbriefbank AG	2008	Registered Bond	1	variable	2018
11	Deutsche Pfandbriefbank AG	2008	Registered Bond	20	variable	2018
12	Deutsche Pfandbriefbank AG	2008	Bearer bond	10	7.496	2018
13	Deutsche Pfandbriefbank AG	2008	Borrowers' note loan	10	7.515	2018
14	Deutsche Pfandbriefbank AG	2008	Bearer bond	25	8.000	2018
15	Deutsche Pfandbriefbank AG	2008	Registered Bond	5	8.000	2018
16	Deutsche Pfandbriefbank AG	2008	Registered Bond	10	8.000	2018
17	Deutsche Pfandbriefbank AG	2008	Registered Bond	30	8.000	2018
18	Deutsche Pfandbriefbank AG	2008	Registered Bond	10	8.000	2018
19	Deutsche Pfandbriefbank AG	2008	Registered Bond	5	8.000	2018
20	Deutsche Pfandbriefbank AG	2008	Registered Bond	10	8.000	2018
21	Deutsche Pfandbriefbank AG	2008	Registered Bond	5	8.000	2018
22	Deutsche Pfandbriefbank AG	2006	Registered Bond	5	4.520	2019
23	Deutsche Pfandbriefbank AG	2006	Registered Bond	1	4.900	2020
24	Deutsche Pfandbriefbank AG	2000	Bearer bond	15	variable	2020
25	Deutsche Pfandbriefbank AG	2006	Borrowers' note loan	10	4.350	2021
26	Deutsche Pfandbriefbank AG	2006	Registered Bond	10	4.570	2021
27	Deutsche Pfandbriefbank AG	2006	Bearer bond	7	4.560	2021
28	Deutsche Pfandbriefbank AG	2006	Borrowers' note loan	1	4.910	2021
29	Deutsche Pfandbriefbank AG	2002	Borrowers' note loan	4	6.550	2022
30	Deutsche Pfandbriefbank AG	2002	Borrowers' note loan	6	6.550	2022
31	Deutsche Pfandbriefbank AG	2002	Bearer bond	10	6.570	2022
32	Deutsche Pfandbriefbank AG	2003	Bearer bond	10	6.750	2023
33	Deutsche Pfandbriefbank AG	2008	Bearer bond	10	8.060	2023
34	Deutsche Pfandbriefbank AG	2003	Borrowers' note loan	5	6.330	2023
35	Deutsche Pfandbriefbank AG	2003	Borrowers' note loan	5	6.330	2023
36	Deutsche Pfandbriefbank AG	2005	Borrowers' note loan	10	4.650	2025
37	Deutsche Pfandbriefbank AG	2016	Borrowers' note loan	2	3.950	2026
38	Deutsche Pfandbriefbank AG	2006	Borrowers' note loan	3	4.530	2026
39	Deutsche Pfandbriefbank AG	2001	Bearer bond	10	6.550	2026
40	Deutsche Pfandbriefbank AG	2006	Registered Bond	5	5.125	2026
41	Deutsche Pfandbriefbank AG	2016	Borrowers' note loan	5	3.880	2026
42	Deutsche Pfandbriefbank AG	2006	Borrowers' note loan	5	5.040	2026
43	Deutsche Pfandbriefbank AG	2016	Bearer bond	35	3.250	2026
44	Deutsche Pfandbriefbank AG	2016	Bearer bond	5	4.120	2031
45	Deutsche Pfandbriefbank AG	2007	Loan	90	5.099	2032
	Total			**495**		

None of the subordinated loans may lead to a premature repayment obligation on the part of the issuer. These loans are subordinated to all creditors' claims unless these are subordinated as well (in case of liquidation, insolvency or in the event of other insolvency or other proceedings). No subsequent limitation of subordination, maturity or notice period can be made. Debtors' termination rights are subject to defined contractual conditions. The original term is at least five years and is usually between 10 and 20 years.

The Tier 2 capital (T2) before regulatory adjustments in the amount of € 635 million (nominal) consists of the portion of 40 % or € 140 million from the Additional Tier 1 capital (AT1) from € 350 million (nominal), which exceeds the capping limit of 60 % according to the grandfathering regulation, as well as from the € 495 million (nominal) of the Tier 2 capital issues (see table 8 "Balance sheet adjustment").

The following deduction items are deducted from the Tier 2 capital (T2) before regulatory adjustments amounting to € 635 million:

- € 189 million amortisation of Tier 2 capital instruments according Article 64 CRR
- Capping the Tier 2 capital instruments to 70 % of the eligable amounts as at 31 December 2012 (Article 486 CRR); : a total of € 67 million exceeds this capping limit.

This results in a regulatory capital charge of the capital instruments of the Tier 2 capital before regulatory adjustments of € 379 million (see table 4 "Own funds structure").

Regulatory Adjustments

The following regulatory adjustment is still applied to the regulatory charges of € 379 million:

- Deduction of € 14 million from the value adjustment deficit of € 70 million (20 %).

After these regulatory adjustments, the Tier 2 (T2) capital amounts to a total of € 366 million (31 December 2015: € 398 million). The main features of Tier 2 instruments issued by pbb according to Article 437 (1), Point (b) CRR are described in Chapter 10 "Notes" of this Disclosure Report.

In order to further strengthen the Tier 2 (T2) capital, pbb made a subordinated new issue of a Bearer bond in the amount of € 150 million (nominal) with a maturity of up to 2027 in the first quarter of 2017.

Own Funds

pbb Group's own funds totalling € 3,105 million (31 December 2015: € 3,140 million) consist of Common Equity Tier 1 (CET1) capital of € 2,553 million, Additional Tier 1 (AT1) capital of € 186 million as well as Tier 2 (T2) capital of € 366 million.

The main features of CET1, AT1 and T2 instruments issued by pbb according to Article 437 (1), Point (b) CRR are described in the Notes of this Disclosure Report. The following Table displays the development of regulatory own funds in financial year 2016.

Table 7: Own Funds Development

All figures in € million

	31.12.2016 2)	31.12.2015 1)	Change
Common Equity Tier 1 (CET1) capital	2,553	2,533	1%
Additional Tier 1 (AT1) capital	186	209	-11%
Tier 1 (T1) capital	**2,739**	**2,742**	**0%**
Tier 2 (T2) capital	366	398	-8%
Own funds	**3,105**	**3,140**	**-1%**

1) After approved annual financial statements 2015 and after result distribution 2015.
2) After approved annual financial statements 2016 and after result distribution 2016.

The slighly reduction of pbb Group's own funds by € 35 million as compared to 31 December 2015 was mainly driven by the recognition of hybrid capital and the subordinated bonds due to repayments, daily amortisation according to CRR and a reduction in grandfathering for all three categories of capital. This effect was partially compensatded by new issuances of debt securities and bearer bonds in the financial year 2016 with a nominal volume of € 47 million.

Reconciliation of Regulatory Capital and Balance Sheet Equity

According to Article 437 (1), Point (a) CRR, the following Table shows a reconciliation of regulatory own funds and financial position equity according to IFRS for pbb Group. pbb Group's financial position equity amounted to € 2,799 million (31 December 2015: € 2,746 million).

Table 8: Balance Sheet Reconciliation

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No.	Capital instruments pbb Group	(A) Total equity according to commercial IFRS-consolidation scope		(B) Total equity according to regulatory CRR-consolidation scope		(C) Regulatory own funds according to CRR	
		31.12.2016	31.12.2015	31.12.2016	31.12.2015	31.12.2016	31.12.2015
	Common Equity Tier 1 (CET1): Instruments and reserves						
1	Capital instruments and the ralted share premium accounts	2,017	2,017	2,017	2,017	2,017	2,017
1a	thereof: Subscribed capital	380	380	380	380	380	380
1b	thereof: Additional paid-in capital	1,637	1,637	1,637	1,637	1,637	1,637
2	Retained earnings	656	483	656	483	656	483
3	Accumulated other comprehensive income (and other reserves)	-71	16	-71	16	-71	16
3a	thereof: AfS-Reserve	-36	-4	-36	-4	-36	-4
3b	thereof: Cashflow-Hedge-Reserve	44	87	44	87	44	87
3c	thereof: Gains / losses from pension commitments	-82	-71	-82	-71	-82	-71
3d	thereof: Foreign currency reserve	3	4	3	4	3	4
4	Consolidated result from 01.01. to 31.12.2016	197	230	197	230	197	230
5	Distribution	-	-	-	-	-141	-58
6	**Common Equity Tier 1 (CET1) before regulatory adjustments**	**2,799**	**2,746**	**2,799**	**2,746**	**2,658**	**2,688**
	Common Equity Tier 1 (CET1): regulatory adjustments						
7	Additional value adjustments (negative amount)	-	-	-	-	-6	-14
8	Intangible assets (net of related tax liability) (negative amount)	-	-	-	-	-15	-8
9	Deferred tax assets that rely on future profitablity excluding those arising from temporary differences (net of related tax liability where the conditions in Article 38 (3) are met) (negative amount)	-	-	-	-	-8	-7
10	Defined-benefit pension fund assets (negative amount)	-	-	-	-	-	-3
11	DVA-Adjustment for derivatives	-	-	-	-	-5	-10
12	Value adjustment deficit	-	-	-	-	-42	-31
13	Elimination of CF-Hedge-Reserve	-	-	-	-	-44	-87
14	Elimination of unrealised losses 40 % (without Exposures to central governments)	-	-	-	-	-3	-1
15	Elimination of unrealised losses 100 % (only Exposures to central governments)	-	-	-	-	18	6
16	Total regulatory adjustments to Common Equity Tier 1 (CET1)	-	-	-	-	-105	-155
17	**Common Equity Tier 1 (CET1)**	**2,799**	**2,746**	**2,799**	**2,746**	**2,553**	**2,533**
	Additional Tier 1 (AT1) capital: Instruments and reserves						
18	Capital instruments and the related share premium accounts	350	350	350	350	350	350
18a	of which: classiefied as equity under applicable accounting standards	350	350	350	350	350	350
19	Accued interest in balance sheet	11	11	11	11	-	-
20	Amount of qualifiying items referred to in article 484 (4) and the related share premium accounts subject to phase out from AT1	-	-	-	-	-140	-105
21	**Additional Tier 1 (AT1) capital before regulatory adjustments**	**361**	**361**	**361**	**361**	**210**	**245**
	Additional Tier 1 (AT1) capital: regulatory adjustments						
22	Balance, which is deducted from the Addtional Tier 1 (AT1) capital and not from CET1 during transitional period according to Article 472 CRR	-	-	-	-	-24	-36
22a	thereof: Intangible assets	-	-	-	-	-10	-13
22b	thereof: value adjustment deficit	-	-	-	-	-14	-23

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No.	Capital instruments pbb Group	(A) Total equity according to commercial IFRS-consolidation scope		(B) Total equity according to regulatory CRR-consolidation scope		(C) Regulatory own funds according to CRR	
		31.12.2016	31.12.2015	31.12.2016	31.12.2015	31.12.2016	31.12.2015
23	Total regulatory adjustmens of Additional Tier 1 (AT1) capital	-	-	-	-	-24	-36
24	**Additional Tier 1 (AT1) capital** 1)	**361**	**361**	**361**	**361**	**186**	**209**
25	**Tier 1 capital (T1 = CET1 + AT1)**	**3,160**	**3,107**	**3,160**	**3,107**	**2,739**	**2,742**
	Tier 2 capital (T 2): Instruments and reserves						
26	Capital instruments and the ralted share premium accounts	495	719	495	719	495	719
27	Amount of qualifiying items referred to in article 484 (5) and the related share premium accounts subject to phase out from T2	-	-	-	-	140	105
28	Deferred interests within the balance sheet	19	27	19	27	-	-
29	Hedge Adjustments within the balance sheet	12	18	12	18	-	-
30	**Tier 2 (T2) capital before regulatory adjustments**	**526**	**764**	**526**	**764**	**635**	**824**
	Tier 2 (T2) capital: regulatory adjustments						
31	Amortisation of Tier 2 capital instrument according to Article 64 CRR	-	-	-	-	-189	-339
32	Amortised Tier 2 capital additionally exceeding AT1 nominal	-	-	-	-	446	485
33	Cut back of Grandfathering instruments to 60 %	-	-	-	-	-67	-65
34	Additional ddeduction and adjustment items from Tier 2 capital to be deducted or added according to pre-CRR-treatment required deductions	-	-	-	-	-67	-65
34a	thereof: Not eligible as Additonal Tier 1 capital (AT1) according to Article 52 CRR, but as Tier 2 capital (T2) according to Article 63 CRR	-	-	-	-	-67	-65
35	Balance, which is deducted from the Tier 2 capital and not from CET1 during transitional period according to Article 472 CRR	-	-	-	-	-14	-23
35a	thereof: value adjustment deficit	-	-	-	-	-14	-23
36	Total regulatory adjustmens of Tier 2 (T2) capital	-	-	-	-	-270	-427
37	**Tier 2 capital (T2)** 1)	**526**	**764**	**526**	**764**	**366**	**398**
38	**Total capital (TC = T1 + T2)**	**3,686**	**3,871**	**3,686**	**3,871**	**3,106**	**3,140**

1) The instruments of additional Tier 1 capital (AT1) und Tier 2 capital (T2) are part of the liabilities within the IFRS balance sheet.

More information on the financial position equity based on IFRS can be found in the Group Management Report of pbb Group's 2016 Annual Report which is publicised on the website of pbb.

3.2 Countercyclical Capital Buffer

The Countercyclical Capital buffer (CCB) pursuant to section 10d KWG is regarded as a macroprudential instrument of banking supervision. It is designed to counter the risk of excessive credit growth in the banking sector, i.e., in times of excessive credit growth, the banks should build an additional capital buffer, kept of hard core capital (CET1) - setting up, the increases in a situation of crisis, the loss absorption capacity of banks.

For Germany the value for the domestic countercyclical capital buffer (CCyP) is determined by the Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht, BaFin). The general order concerning the introduction of the quota for the countercyclical capital buffer in accordance with section 10d (3) sentence 2 KWG of 28 December 2015, the BaFin has set the quota for Germany with effect from 1 January 2016 to 0 %.

pbb Group has to determine its own institution-specific countercyclical capital buffer (ICCyB) itself. The value of the countercyclical capital buffer valid for Germany must be taken into account and applied to the sum of the relevant credit risk positions that are located in Germany. In addition to the domestic countercyclical capital buffer, foreign countercyclical capital buffers from countries in which pbb Group receivables are held must also be included. The countercyclical capital buffers valid there must be taken into account pro rata (see table 10, row 120: Sweden and Norway in each case 1,50 %). The institution specific countercyclical capital buffer for the pbb Group is thus derived from the weighted average of the domestic and foreign capital buffers of those countries in which the pbb Group holds significant credit risk positions against the private sector (see table 10: as the sum of the weighted own funds requirement per country as per column 110, multiplied by the country-specific ACP in % according to column 120).

The following tables in accordance with Article 440 CRR in conjunction with Delegate Regulation (EU) 2015/1555 of 28 May 2015 show the geographical distribution of the credit risk positions essential for the calculation of the institution-specific countercyclical capital buffer as well as the amount of the pbb group-specific countercyclical capital buffer.

Table 9: Company Specific Countercyclical Capital Buffer

All figures in € million

Row	Amount of institution-specific countercyclical capital buffer	Column 010
010	Total risk exposure amount	13,113
020	Institution-specific countercyclical buffer rate	0.083%
030	Institution-specific countercyclical buffer requirement	11

1) The institution-specific countercyclical capital buffer is limited to 0.625% in 2016.

The institution specific countercyclical capital buffer (ICCyB) for pbb Group as of 31 December 2016 is due to the Sweden and Norway porfolios at 0.083 %, which is well below the maximum rate of 0.625 % for 2016. There is no capping of the pbb Group specific countercyclical capital buffer rate.

The capital requirement of € 11 million (0,083 % of the risk weighted receivables)is to be held in common equity capital (CET1) in accordance with section 10d (1) KWG. pbb Group has a common equity capital (CET1) of € 1,963 million for this purpose, as well as for the equity requirement for the Capital Conservation Buffer (CCB), after observing the CET1 ratio of 4.5 % of the total risk exposure amount.

Disclosure Report as of 31 December 2016

Table 10: Countercyclical Capital Buffer- geographical distribution of Risk Positions

All figures in € million

Row			Geographical distribution of credit exposures relevant for the calculation of the countercyclical capital buffer													
			General credit exposures		Trading book exposures		Securitisation exposures		Others	Own funds requirements						
			Exposure value for SA	Exposure value for IRB	Sum of long and short position of trading book	Value of tranding book exposures for internal models	Exposure value for SA	Exposure value for IRB	Other assets without credit commitments	Of which: General credit exposures	Of which: Trading book exposures	Of which: Securitisation exposures	Other assets without credit commitments	Total	Own funds requirement weights per country	Countercyclical capital buffer rate [1] in %
			010	020	030	040	050	060	065	070	080	090	095	100	110	120
10	**Breakdown by country** [2]															
	(AI)	Anguilla	-	67	-	-	-	-	-	1	-	-	-	1	0.00	-
	(AT)	Austria	-	488	-	-	-	-	-	12	-	-	-	12	0.02	-
	(BM)	Bermuda	-	117	-	-	-	-	-	2	-	-	-	2	0.00	-
	(CH)	Switzerland	-	339	-	-	-	-	-	4	-	-	-	4	0.01	0.00%
	(CY)	Cyprus	-	32	-	-	-	-	-	0.4	-	-	-	0.4	0.00	-
	(CZ)	Czech Republic	-	303	-	-	-	-	-	10	-	-	-	10	0.02	-
	(DE)	Germany	195	10,640	-	-	-	-	33	203	-	-	3	205	0.42	0.00%
	(DK)	Denmark	0.2	14	-	-	-	-	-	0.4	-	-	-	0.4	0.00	-
	(EG)	Egypt		2	-	-	-	-	-	0.3	-	-	-	0.3	0.00	-
	(ES)	Spain	23	231	-	-	-	-	4	6	-	-	0.3	6	0.01	-
	(FI)	Finland		163	-	-	-	-	-	6	-	-	-	6	0.01	-
	(FR)	France	2.2	3,333	-	-	-	-	0.4	58	-	-	0.04	58	0.12	-
	(GB)	United Kingdom	-	1,603	-	-	-	-	2	17	-	-	0.2	17	0.04	0.00%
	(GG)	Guernsey	-	340	-	-	-	-	-	10	-	-	-	10	0.02	-
	(GI)	Gibraltar	-	10	-	-	-	-	-	0.1	-	-	-	0.1	0.00	-
	(HU)	Hungary	-	316	-	-	-	-	-	12	-	-	-	12	0.02	-
	(IM)	Isle of Man	-	31	-	-	-	-	-	0.2	-	-	-	0.2	0.00	-
	(IT)	Italy	-	116	-	-	-	-	-	1	-	-	-	1	0.00	0.00%
	(JE)	Jersey	-	1,080	-	-	-	-	-	20	-	-	-	20	0.04	-
	(JP)	Japan	-	-	-	-	-	-	0.02	-	-	-	-	-	-	0.00%
	(LI)	Liechtenstein	-	4	-	-	-	-	-	0.01	-	-	-	0.01	0.00	-
	(LU)	Luxemburg	3	3,274	-	-	-	-	-	44	-	-	-	44	0.09	0.00%
	(MU)	Mauritius	-	89	-	-	-	-	-	1	-	-	-	1	0.00	-
	(NL)	Netherlands	4	985	-	-	-	-	-	12	-	-	-	12	0.02	0.00%
	(NO)	Norway	-	27	-	-	-	-	-	0.3	-	-	-	0.3	0.00	1.50%
	(PL)	Poland	-	1,212	-	-	-	-	-	27	-	-	-	27	0.06	-
	(PT)	Portugal	-	3	-	-	-	-	-	0.01	-	-	-	0.01	0.00	-
	(RO)	Romania	-	69	-	-	-	-	-	1	-	-	-	1	0.00	-
	(SE)	Sweden	-	1,353	-	-	-	-	0.2	27	-	-	0.01	27	0.06	1.50%
	(SI)	Slovenia	-	97	-	-	-	-	-	5	-	-	-	5	0.01	-
	(US)	United States of America	-	389	-	-	-	-	-	7	-	-	-	7	0.02	0.00%
	(VG)	Virgin Islands	-	400	-	-	-	-	-	4	-	-	-	4	0.01	-
20	**Total**		**227**	**27,127**	**-**	**-**	**-**	**-**	**40**	**490**	**-**	**-**	**3**	**493**	**1.00**	

1) 1) According Bank for International Settlements (BIS) as from 20 July 2016 2) Country: Place of the debtor where the risk of the exposure is located.

3.3 Capital Requirements

pbb is as the parent company of the banking group in accordance with § 10a KWG in conjunction with Article 11 et seq. CRR responsible for complying with own funds requirements on a consolidated basis (regulatory scope of consolidation).

Methods to Determine the Own Funds Requirement

Since 1 January 2014 pbb Group has been applying the provisions of CRR and is therefore subject to the disclosure requirements according to Part 8 of CRR. The provisions of CRR/CRD IV define the minimum amount of own funds as well as the calculation of capital requirements. In order to meet the capital requirements, the credit risk (counterparty credit risk), market risk, operational risk, settlement risk as well as the credit value adjustment risk (CVA risk) must be supported with capital. The regulatory key figures are calculated based on IFRS accounting standards.

Credit Risk

According to Article 142 et seq. CRR, pbb uses the Advanced IRB Approach, which is based on internal rating procedures, for the calculation of capital requirements to support credit risks. The following Table displays the coverage for IRBA exposure at default (EAD) as well as for risk-weighted IRBA assets (RWA) according to Section 11 SolvV.

Table 11: IRB-Approach Coverage

	Degree of coverage IRB-Approach	
	EAD	RWA
31. December 2014	95%	99%
31. December 2015	96%	99%
31. December 2016	97%	99%

In pbb Group's credit portfolio the Advanced IRB Approach covers 97 % of the exposure at default (EAD). The remaining 3 % of EAD which are subject to the standard approach according to CRR regulations include e. g. counterparty default exposure to public sector borrowers (i.e. amounts due from German municipalities) and the non-strategic remaining portfolio which consists of smaller retail customer real estate loans.

For the calculation of capital requirements for counterparty credit risk according to Part 3, Title II, Chapter 6 CRR, pbb Group applies the mark-to-market method as per Article 274 CRR.

Market Risk

According to Part 3, Title IV CRR, pbb Group calculates own funds required for market risk based on the standardised approach as defined in Articles 325 et seq. CRR.

Operational Risk

According to Part 3, Title III CRR, pbb group calculates own funds required for operational risk based on the standardised approach as defined in Articles 317 et seq. CRR.

Settlement Risk

According to Part 3, Title V CRR, own funds required for settlement and advance performance risk are calculated based on the rules laid down in Articles 378 and 379 CRR.

CVA Risk

According to Part 3, Title VI CRR, pbb uses the standardised approach as defined in Article 384 CRR to calculate own funds required for the credit valuation adjustment (CVA) risk. This is based on the effective maturity, a rating-based weight and the EAD, where the EAD of the transactions concerned is determined using the mark-to-market method according to Article 274 CRR.

Capital Requirements

As in the previous year, the capital requirement for the risk categories mentioned above amounts to 8 % of risk-weighted assets (RWA) per 31 December 2016.

The total capital requirement is 8.708 %. The increase of 0.708 % compared with 31 December 2015 results from the introduction of capital buffers pursuant to Section 10c and 10d KWG in conjunction with Section 64r KWG in 2016, the capital reserve buffer in the amount of 0.625 % of the total risk premium and the institution-specific countercyclical capital buffer (ICCyB), which amounts to 0.083 % of the total risk premium as at 31 December 2016 for pbb Group.

Table 12: Risk-weighted Assets

All figures in € million

	31.12.2016 [2)]	31.12.2015 [1)]	Change
Risk-weighted assets	13,113	13,402	-2%

1) After approved annual financial statements 2015 and after result distribution 2015.
2) After approved annual financial statements 2016 and after result distribution 2016.

As of 31 December 2016, RWAs of pbb Group amounted to € 13,113 million (31 December 2015: € 13,402 million), and thus only slightly lower than at the end of the previous year. RWA distribution among risk categories is as follows:

- Credit risk € 11,589 million (31. December 2015: € 12,163 million)
- CVA risk € 312 million (31. December 2015: € 374 million)
- Market risk € 346 million (31. December 2015: € 70 million)
- Operational risk € 866 million (31. December 2015: € 795 million)

According to Article 438, Points (c), (d), (e) and (f) CRR, the following Tables show the regulatory own funds requirement as well as the risk-weighted assets for pbb Group, listed by risk categories.

Table 13: Capital Requirements and Risk-weighted Assets for Credit Risks

All figures in € million

Credit risk including counterparty credit risk	Capital requirement and risk-weighted assets				
	31.12.2016		31.12.2015		Change capital requirement
	Capital requirement	Risk-weighted assets	Capital requirement	Risk-weighted assets	
IRB approach					
Exposures to central governments and central banks	196	2,449	219	2,739	-11%
Exposures to institutions	237	2,963	234	2,926	1%
Exposures to corporates	469	5,858	494	6,180	-5%
Thereof: Small and medium-sized enterprises (SME)	256	3,205	295	3,692	-13%
Thereof: Spesialised lending exposures	-	-	-	-	-
Thereof: Other	212	2,653	199	2,488	7%
Retail exposures	-	-	-	-	-
Thereof: Secured by mortgages on immovable property / SME	-	-	-	-	-
Thereof: Secured by mortgages on immovable property / not SME	-	-	-	-	-
Thereof: Qualifying revolving retail exposures	-	-	-	-	-
Thereof: Other retail exposures / SME	-	-	-	-	-
Thereof: Other retail exposures / not SME	-	-	-	-	-
Other non credit-obligation assets	3	40	5	59	-36%
Total	**905**	**11,310**	**952**	**11,904**	**-5%**

All figures in € million

Credit risk including counterparty credit risk	Capital requirement and risk-weighted assets				
	31.12.2016		31.12.2015		Change capital requirement
	Capital requirement	Risk-weighted assets	Capital requirement	Risk-weighted assets	
Standardised approach					
Exposures to central governments and central banks	-	-	-	-	-
Exposures to regional governments and local authorities	-	-	-	-	-
Exposures to other public sector entities	-	-	-	-	-
Exposures to multilateral development banks	-	-	-	-	-
Exposures to international organisations	-	-	-	-	-
Exposures to institutions	1	8	1	10	-19%
Exposures to corporates	8	105	3	42	149%
Retail exposures	0.1	1	0.1	1	-21%
Exposures secured by mortgages on immovable property	1	16	2	29	-46%
Exposures in default	0.4	5	1	8	-41%
Exposures associated with particularly high risk	-	-	-	-	-
Exposures in the form of covered bonds	-	-	-	-	-
Exposures to institutions and corporates with short-term credit assessment	-	-	-	-	-
Exposures in the form of units or shares in collective investment undertakings (CIUs)	0.2	3	-	-	-
Other items [1)]	11	141	13	166	-15%
Total	**22**	**279**	**21**	**258**	**6%**

1) Subject to future profitability, from or not from temporary differences resulting from deferred tax assets.

All figures in € million

Items representing securitisation positions	Capital requirement and risk-weighted assets				
	31.12.2016		31.12.2015		Change capital requirement
	Capital requirement	Risk-weighted assets	Capital requirement	Risk-weighted assets	
Standardised approach	-	-	-	-	-
Thereof re-securitisation	-	-	-	-	-
IRB approach	-	-	-	-	-
Thereof re-securitisation	-	-	-	-	-
Total	**0**	**0**	**0**	**0**	**0%**

All figures in € million

Equity exposures	Capital requirement and risk-weighted assets				
	31.12.2016		31.12.2015		Change capital requirement
	Capital requirement	Risk-weighted assets	Capital requirement	Risk-weighted assets	
Standardised approach					
Thereof equity investments if method retained / grandfathered	0.01	0.1	0.02	0.2	-50%
Total	**0.01**	**0.1**	**0.02**	**0.2**	**-50%**
IRB approach					
Internal model appoach	-	-	-	-	-
PD/LGD approach	-	-	-	-	-
Simple risk-weighting approach	0.01	0.1	0.01	0.1	0%
Thereof exchange-traded equity investments	-	-	-	-	-
Thereof unlisted, but part of a sufficiently deversified portfolio	-	-	-	-	-
Thereof other investments	0.01	0.1	0.01	0.1	0%
Total	**0.01**	**0.1**	**0.01**	**0.1**	**0%**

All figures in € million

Counterparty credit risk	Capital requirement and risk-weighted assets				
	31.12.2016		31.12.2015		Change capital requirement
	Capital requirement	Risk-weighted assets	Capital requirement	Risk-weighted assets	
Own funds requirements for pre-funded contributions to the default fund of central counterparties (CCP)	0.04	1	0.02	0.3	122%
For information: Counterparty credit risk from derivative risk positions acc. to the market valuation method in acc. with Art.274 CRR [1)]	43	541	48	598	-10%
For information: Counterparty credit risk from Securities Financing Transactions (SFT) [1)]	11	138	7	88	58%
Total	**0.05**	**1**	**0.02**	**0.3**	**140%**

1) The RWA for OTC derivatives and SFTs are already included in the credit risk tables (standardised approach and IRB approach).

Table 14: Capital requirements and Risk-weighted Assets for CVA Risks

All figures in € million

CVA risk [1]	Capital requirement and risk-weighted assets				
	31.12.2016		31.12.2015		Change capital requirement
	Capital requirement	Risk-weighted assets	Capital requirement	Risk-weighted assets	
Advanced method	-	-	-	-	-
Standardised method	25	312	30	374	-17%
Alternative method, based on the original exposure method	-	-	-	-	-
Total	**25**	**312**	**30**	**374**	**-17%**

1) Credit Value Adjustments, risk positions for the adjustment of credit valuation

Table 15: Capital Requirements and Risk-weighted Assets for Market Risks

All figures in € million

Market risk	Capital requirement and risk-weighted assets				
	31.12.2016		31.12.2015		Change capital requirement
	Capital requirement	Risk-weighted assets	Capital requirement	Risk-weighted assets	
Standard approach	28	346	6	70	361%
Position risk	-	-	-	-	-
Thereof: Debt securities	-	-	-	-	-
Thereof: Equity instruments	-	-	-	-	-
Foreign-exchange risk	28	346	6	70	361%
Commodity risk	-	-	-	-	-
Internal model approach	-	-	-	-	-
Total	**28**	**346**	**6**	**70**	**361%**

Table 16: Capital Requirements and Risk-weighted Assets for Settlement Risks

All figures in € million

Settlement risk	Capital requirement and risk-weighted assets				
	31.12.2016		31.12.2015		Change capital requirement
	Capital requirement	Risk-weighted assets	Capital requirement	Risk-weighted assets	
Settlement risk included in the banking book	-	-	-	-	-
Settlement risk included in the trading book	-	-	-	-	-
Total	**0**	**0**	**0**	**0**	**0%**

Table 17: Capital Requirements and Risk-weighted Assets for Large Loans in the Trading Book

All figures in € million

Large exposures in the trading book [1]	Capital requirement and risk-weighted assets				
	31.12.2016		31.12.2015		Change capital requirement
	Capital requirement	Risk-weighted assets	Capital requirement	Risk-weighted assets	
Additional own funds requirements due to excess of large exposures in the trading book	-	-	-	-	-
Total	**0**	**0**	**0**	**0**	**0%**

1) pbb Group does not hold a trading book for securities- and derivatives portfolios with the aim of generating short-term profit.

Table 18: Capital Requirements and Risk-weighted Assets for Operational Risks

All figures in € million

Operational risk	Capital requirement and risk-weighted assets				
	31.12.2016		31.12.2015		Change capital requirement
	Capital requirement	Risk-weighted assets	Capital requirement	Risk-weighted assets	
Basic indicator approach	-	-	-	-	-
Standard approach	69	866	64	795	8%
Advanced measurement approach (AMA)	-	-	-	-	-
Total	**69**	**866**	**64**	**795**	**8%**

As at the reporting date, the capital requirement for pbb Group's risk-weighted assets of € 13,113 million decreased slightly (31 December 2015: € 13,402 million) and primarily results from repayments and the further strategy-compliant reduction of the non-strategic portfolio as well as changes in the loss-given default (LGD) Risk weights. Opposing effects were, above all, the new business volume (including the prolongations with maturities of more than one year) in fiscal year 2016, in particular in strategic real estate financing, an increase in the credit conversion factor (CCF) for mortgage loans from 40 % to 50 % (the risk position value for undrawn commitments, particularly new business) and the increase in the foreign currency risk (the risk of changes in foreign exchange rates).

The minimum capital requirement for risk-weighted assets of pbb Group at the reporting date total € 1,049 million (31 December 2015: € 1,072 million). In line with the business model of the pbb Group, which focuses on commercial real estate financing and public investment financing, 90 % of the equity requirement is accounted for by default and CVA risks, 3 % to market risks and 7 % to operational risks.

The total equity requirement is € 1,142 million (31 December 2015: € 1,072 million). The increase of € 70 million against the minimum capital requirement is due to the introduction of the capital conservation buffer (CCB) and the institution-specific countercyclical capital buffer (ICCyB) in 2016. The capital requirement for the capital buffers is to be held in CET1 capital in accordance with section 10c (1) KWG and section 10d (1) KWG. pbb Group has a CET1 capital of € 1,963 million for this purpose, after observing the CET1 capital ratio of 4.5 % of the total risk premium.

Surplus Own Resources

As of 31 December 2016, pbb Group's surplus own resources (own resources less capital requirements) including the 2016 net profit and after deduction of the proposed dividend subject to the approval of the Annual General Meeting amounted to € 1,963 million (31 December 2015: € 2,068 million).

3.4 Capital Ratios

Since 1 January 2014 Regulation (EU) No. 575/2013 (Capital Requirements Regulation; CRR) as well as Directive 2013/36/EU (Capital Requirements Directive; CRD IV) have been in place. They form the basis for the calculation of regulatory capital and capital ratios.

According to these provisions, the Common Equity Tier 1 Ratio (CET1 Ratio; Common Equity Tier 1 divided by risk-weighted assets) must not fall below 4.5 %, the Tier 1 Ratio (T1 Ratio, Tier 1 divided by risk-weighted assets) must not fall below 6.0 % and the Own Funds Ratio (own funds divided by risk-weighted assets) must not fall below 8.0 % in financial year 2016. pbb, as the parent company of the institutional group within the meaning of section 10a KWG in conjunction with article 11 et seq. CRR, is responsible for complying with the capital ratios on a summarised basis.

Table 19: Capital Ratios

All figures in %

	Common Tier 1 equity ratio		Tier 1 capital ratio		Total Capital ratio	
	31.12.2016 [2]	31.12.2015 [1]	31.12.2016 [2]	31.12.2015 [1]	31.12.2016 [2]	31.12.2015 [1]
pbb Group	19.5	18.9	20.9	20.5	23.7	23.4

1) After approved annual financial statements 2015 and after result distribution 2015.
2) After approved annual financial statements 2016 and after result distribution 2016.

pbb Group has a solid capital base. The provisions in terms of regulatory capital ratios were complied with at any point in time during the financial year 2016. This also applies to the requirements of the European Banking Supervisory Authority (EBA), which exceed the existing regulatory requirements, for the minimum capital requirements of the Supervisory Review and Evaluation Process (SREP). As a main result of the SREP, pbb Group has set a CET1 minimum ratio of 10.75 %, for 2016, which the Group has complied with at all times.

As of 1 January 2017, the pbb Group has a CET1 minimum ratio of 9.00 % (without the country-specific and thus portfolio-specific varying countercyclical capital buffer).

3.5 Unencumbered and Encumbered Assets

As of 31 December 2016, pbb Group's assets, based on the median of quarterly data for the financial year, amounted to € 65.8 billion (31 December 2015: € 70.3 billion), of which € 42.0 billion, respectively 64 % (31 December 2015: € 47.7 billion, respectively 68 %) were encumbered. pbb Group's asset encumbrance mainly results from its business model using Pfandbriefe as most important refinancing instrument. pbb Group specialises in commercial real estate and public investment finance. Most of its loans are refinanced on the Pfandbrief market.

According to the Commission Implementing Regulation (EU) 2015/79, Annex III, 1.7, an asset shall be treated as encumbered if it has been pledged or if it is subject to any form of arrangement to secure, collateralise or credit enhance any transaction from which it cannot be freely withdrawn. An asset encumbrance results from the requirement to provide collateral, usually caused by a transaction on the liabilities side of the balance sheet (refinancing side). As in the previous year, in 2016 Pfandbriefe accounting for 82 % were the main source of asset encumbrances for pbb Group. In addition to the issue of mortgage Pfandbriefe and public Pfandbriefe leading to an encumbrance of loans and securities in the mortgage and public cover pools, derivative financing instruments (13 %) and securities lending transactions (repo transactions, 5 %) also contributed to asset encumbrances. Throughout financial year 2016, pbb Group's asset encumbrances remained largely unchanged.

Pfandbriefe

As a specialist bank for real estate and public investment finance, pbb issues mortgage Pfandbriefe as well as public Pfandbriefe. These are regularly issued on the international capital market in the benchmark format or as private placements. In line with the loan business, pbb Group offers Pfandbriefe in various maturities and different currencies with a focus on the Euro and the British pound.

The issue of Pfandbriefe is subject to the stringent provisions of the German Covered Bond Act (Pfandbriefgesetz, PfandBG) which places high demands on investor protection. Because of high legal standards Pfandbriefe are above average safe. The guarantee mechanisms provided for by the German Covered Bond Act work amongst others through the so-called preferential right in insolvency granted to bond creditors. In the event of an insolvency of a Pfandbriefbank, the cover pool for Pfandbriefe is first of all completely at bond creditors' disposal to settle their claims. Only if the Pfandbrief creditors have been completely satisfied, a remaining remnant of the cover assets is available to the insolvency creditors for satisfaction. Pfandbrief banks are required to report on the composition and structure of their cover pools on a quarterly basis.

Over Collateralisation of Pfandbriefe

The German Covered Bond Act (PfandBG) provides for a net present over collateralisation of 2 % for Pfandbriefe, thereby ensuring at all times that the net present value of the cover pool is at least 2 % higher than the net present value of all Pfandbriefe issued for this cover pool. Furthermore, the nominal cover must be ensured. This means that the total nominal value of all cover assets must at least cover the total nominal value of Pfandbriefe issued for this cover pool.

Depending on the cover pool quality and the Pfandbrief rating the bank wants to achieve, Rating agencies desire beyond that pbb to ensure an additional surplus cover. As of 31 December 2016, Moody's rated pbb's mortgage Pfandbriefe and public Pfandbriefe Aa1. To maintain this rating, pbb must provide a minimum net present value surplus cover of 9.5 % (mortgage Pfandbriefe) and 7.5 % (public Pfandbriefe) respectively.

In fact the surplus cover of mortgage Pfandbriefe as of 31 December 2016 amounted to 19.8 % (nominal value) and 18.4 % (net present value). For public Pfandbriefe, pbb provided a surplus cover of 17.9 % (nominal value) and 14.9 % (net present value) as of 31 December 2016. The over collateralisation thereby exceeded the requirements of both rating agencies and the legislator.

As to mortgage Pfandbriefe, pbb is under a contractual obligation to ensure a surplus cover which goes beyond the legal requirements. A contract for the benefit of third parties ensures that pbb mortgage Pfandbrief holders are offered a surplus cover in addition to the voluntary surplus cover which allows for a Moody's Aa1 rating. The contractual surplus cover is actually at 1 % and can go up to 6 % if Moody's so wishes.

pbb's current surplus cover as well as the contractual and voluntary surplus covers as requested by Moody's can be found on pbb's website under Investor Relations / Mandatory Publications / Publications according to Section 28 PfandBG.

In order to control the bank's liquidity position and to optimise both quality and cash flows of cover pools, pbb can provide more surplus cover than required by law or desired by the rating agencies.

Derivatives and Security Lending Transactions

pbb Group uses derivatives mainly to hedge market risks resulting e. g. from changed interest and exchange rates. Derivative transactions are usually made using standardised mutual netting agreements which help minimise legal risks as well as economic and regulatory credit risks. These allow for netting of mutual risks and this means that positive and negative market values of derivative contracts subject to a netting agreement can be offset against one another and future regulatory risk premiums for these products can be reduced. Within the framework of the netting process, the credit risk is reduced to one single net claim due from the contracting party.

The use of repos/reverse repos allows for short-term liquidity planning and is a key source for pbb’s secured refinancing. Bilateral master agreements between pbb and the contracting banks or the European Exchange (Eurex) form the legal basis for such repo transactions.

Hedging of Liabilities

In the context of its derivatives and repo business, pbb uses common framework contracts including the related collateral agreements. While for bilateral repo transactions, usually cash securities are provided, repo transactions cleared by a central counterparty are normally based on securities. In the bilateral interbank business derivatives are secured using marketable credit support annexes (e. g. German DRV Credit Support Annex, ISDA Credit Support Annex). In this case, pbb provides or receives cash securities, usually in Euros. Securities are provided via title transfer. Transactions are usually valued on a daily basis. Most collateral agreements do not provide for an allowance threshold (any longer), but do provide for so-called minimum transfer amounts. In some few cases these amounts depend on the rating. The framework contracts used for derivatives and repo transactions contain a netting provision in the event of an early termination of the transaction, e. g. due to default of payment or insolvency (close-out-netting). As far as derivatives are cleared by a central counterparty, securities are furnished by a pledge of securities and by providing cash securities via title transfer.

Since 1 March 2017, a collateral requirement for non-cleared, bilateral derivative transactions between financial counterparties or certain non-financial counterparties (so-called margin payments or variation margin) applies. There is an obligation to collateralise the respective net market value with daily revaluation and, in principle, also daily adjustment on the basis of corresponding collateral arrangements.

According to Article 443 CRR in conjunction with EBA guidelines EBA/GL/2014/03 as of 27 June 2014, the following Tables show pbb Group's asset encumbrance. The amounts are based on median values of quarterly data for the financial year.

Table 20: Assets

All figures in € million

Assets	Carrying amount of encumbered assets	Fair value of encumbered assets	Carrying amount of non-encumbered assets	Fair value of non-encumbered assets
Assets of the reporting institution	41,983	————	23,768	————
Equity instruments	-	-	-	-
Debt securities	5,690	5,687	8,006	7,380
Other assets	5,685	————	737	————

Table 21: Collateral Received

All figures in € million

Collateral received	Fair value of encumbered collateral received or own debt securities issued	Fair value of collateral received or own debt securities issued available for encumberance
Collateral received by the reporting institution	-	-
Equity instruments	-	-
Debt securities	-	-
Other collateral received	-	-
Own debt securities issued other than other covered bonds or ABS	-	-

Table 22: Sources of Encumbrances

All figures in € million

Encumbered assets and encumbered collateral received and matching liabilities	Matching liabilities, contingent liabilities or securities lent	Assets, collateral received and own debt securities issued, other than own covered bonds or ABS encumbered
Carrying amount of selected financial liabilities	38,495	41,983

Other assets shown in "Assets" mainly comprise derivative assets (96 %), most of which are subject to encumbrances. Furthermore, they comprise unencumbered assets such as tax claims (3 %) as well as other tangible and intangible assets (real estate from salvage acquisitions, operating and business equipment, software).

3.6 Leverage Ratio

According to Article 429 (2) CRR, the leverage ratio is calculated as an institution's capital measure divided by that institution's total exposure measure and is expressed as a percentage. This figure is not risk sensitive and complements the risk-based perspective of capital requirements and capital ratios. The calculation of the ratio is based on the provisions of Commission Delegated Regulation (EU) 2015/62 of 10 October 2014 amending Regulation (EU) No. 575/2013 of the European Parliament and of the Council on leverage ratios.

According to Article 451 CRR in counjunction with the Implementing Regulation (EU) 2016/200 as of 15 February 2016, the following Tables show the leverage ratio factors for pbb Group. So far there is no binding upper limit applicable to the leverage ratio. However within the framework of Basel III, a maximum leverage ratio reference value of > 3 % is being tested and observed until 1 January 2017. On 3 August 2016, the European Banking Supervisory Authority (EBA) published its report on the impact assessment and calibration of the leverage ratio (EBA-Op-2016-13). In this, the EBA recommends the introduction of a binding minimum leverage ratio in the European Union from 1 January 2018. The required minimum ratio is 3 %

As of 31 December 2016 the leverage ratio of pbb Group was 4.6 % (31 December 2015: 4.5 %) which is significantly above the minimum requirements.

Table 23: Leverage Ratio (LRSum)

All figures in € million

	Summary reconciliation of accounting assets and leverage ratio exposures	Applicable amount	
		31.12.2016	31.12.2015
1	Total assets as per published financial statements	62,629	66,761
2	Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation	-	-
3	(Adjustment for fiduciary assets recognised on the balance sheet pursuant to the applicable accounting framework but excluded from the leverage ratio exposure measure in accordance with Article 429 (13) of Regulation (EU) No 575/2013)	-	-
4	Adjustments for derivative financial instruments	-3,769	-5,663
5	Adjustments for securities financing transactions (SFTs)	363	199
6	Adjustment for off-balance sheet items (ie conversion to credit equivalent amounts of off-balance sheet exposures)	1,853	1,589
EU-6a	(Adjustment for intragroup exposures excluded from the leverage ratio exposure measure in accordance with Article 429 (7) of Regulation (EU) No 575/2013)	-	-
EU-6b	(Adjustment for exposures excluded from the leverage ratio exposure measure in accordance with Article 429 (14) of Regulation (EU) No 575/2013)	-75	-62
7	Other adjustments	-1,789	-1,546
8	**Leverage ratio total exposure measure**	**59,212**	**61,278**

Table 24: Leverage Ratio (LRCom)

All figures in € million

	Leverage ratio common disclosure	CRR leverage ratio exposures 31.12.2016	CRR leverage ratio exposures 31.12.2015
	On-balance sheet exposures (excluding derivatives and SFTs)		
1	On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral)	58,056	60,195
2	(Asset amounts deducted in determining Tier 1 capital)	-75	-62
3	**Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets) (sum of lines 1 and 2)**	**57,981**	**60,133**
	Derivative exposures		
4	Replacement cost associated with all derivatives transactions (ie net of eligible cash variation margin)	362	426
5	Add-on amounts for PFE associated with all derivatives transactions (mark-to-market method)	425	471
EU-5a	Exposure determined under Original Exposure Method	-	-
6	Gross-up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the applicable accounting framework	27	-
7	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	-1,818	-1,546
8	(Exempted CCP leg of client-cleared trade exposures)	-	-
9	Adjusted effective notional amount of written credit derivatives	-	-
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	-	-
11	**Total derivative exposures (sum of lines 4 to 10)**	**-1,004**	**-649**
	Securities financing transaction exposures		
12	Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	19	6
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	-	-
14	Counterparty credit risk exposure for SFT assets	363	199
EU-14a	Derogation for SFTs: Counterparty credit risk exposure in accordance with Article 429b (4) and 222 of Regulation (EU) No 575/2013	-	-
15	Agent transaction exposures	-	-
EU-15a	(Exempted CCP leg of client-cleared SFT exposure)	-	-
16	**Total securities financing transaction exposures (sum of lines 12 to 15a)**	**382**	**205**
	Other off-balance sheet exposures		
17	Off-balance sheet exposures at gross notional amount	3,984	3,557
18	(Adjustments for conversion to credit equivalent amounts)	-2,131	-1,968
19	**Other off-balance sheet exposures (sum of lines 17 to 18)**	**1,853**	**1,589**
	Exempted exposures in accordance with CRR Article 429 (7) and (14) (on and off balance sheet)		
EU-19a	(Exemption of intragroup exposures (solo basis) in accordance with Article 429(7) of Regulation (EU) No 575/2013 (on and off balance sheet))	-	-
EU-19b	(Exposures exempted in accordance with Article 429 (14) of Regulation (EU) No 575/2013 (on and off balance sheet))	-	-
	Capital and total exposures		
20	**Tier 1 capital**	**2,739**	**2,742**
21	**Total leverage ratio exposures (sum of lines 3, 11, 16, 19, EU-19a and EU-19b)**	**59,212**	**61,278**
	Leverage ratio		
22	**Leverage ratio**	**4.6**	**4.5**

All figures in € million

	Leverage ratio common disclosure	CRR leverage ratio exposures 31.12.2016	CRR leverage ratio exposures 31.12.2015
	Choice on transitional arrangements and amount of derecognised fiduciary items		
EU-23	Choice on transitional arrangements for the definition of the capital measure	-	-
EU-24	Amount of derecognised fiduciary items in accordance with Article 429(11) of Regulation (EU) NO 575/2013	-	-

Table 25: Leverage Ratio (LRSpl)

All figures in € million

	Split-up of on balance sheet exposures (excluding derivatives, SFTs and exempted exposures)	CRR leverage ratio exposures 31.12.2016	CRR leverage ratio exposures 31.12.2015
EU-1	Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures), thereof:	56,267	58,649
EU-2	Trading book exposures		-
EU-3	Banking book exposures, thereof:	56,267	58,649
EU-4	Covered bonds	2,128	2,145
EU-5	Exposures treated as sovereigns	20,433	23,380
EU-6	Exposures to regional governments, MDB, international organisations and PSE NOT treated as sovereigns	3,263	3,277
EU-7	Institutions	1,362	1,622
EU-8	Secured by mortgages of immovable properties	18,473	17,855
EU-9	Retail exposures	1	2
EU-10	Corporate	8,885	9,455
EU-11	Exposures in default	1,441	797
EU-12	Other exposures (eg equity, securitisations, and other non-credit obligation assets)	281	116

The leverage ratio is part of pbb Group's capital and multi-year planning. The ratio is determined on a monthly basis and integrated into the group's risk management and risk controlling systems. pbb's Management Board is informed on the leverage ratio on a regular basis (monthly) within the framework of the Management Report.

The leverage ratio of the pbb Group increased slightly to 4.6 % as of 31 December 2016 compared with 31 December 2015 (31 December 2015: 4.5 %). This increase is mainly attributable to the reduction in the overall risk position measurement size by around € 2 billion, with nearly unchanged Tier1 capital (T1). Tier1 capital as at 31 December 2016 amounts to € 2,739 million (31 December 2015: € 2,742 million), the total risk position measurement is € 59,212 million (31 December 2015: € 61,278 million.

4 Risk Management and Risk-Oriented Bank Management

pbb Group had implemented a Group-wide risk management and risk control system, which provides for uniform risk identification, measurement and limitation in accordance with section 91 (2) of the German Stock Corporation Act (AktG) and section 25 a of the German Banking Act (Kreditwesengesetz, KWG).

Declarations of the Management Board

The disclosure requirements according to Article 435 (1), Points (a) to (f) CRR concerning risk management strategy, risk management processes and risk management policy are complied with by this Disclosure Report as well as by the Risk and Opportunity Report in pbb Group's Annual Report 2016. The Annual Report is publicised on pbb's website under Investor Relations / Financial Reports. The Risk and Opportunity Report shows risks and opportunities identified for the various risk categories within the framework of the implemented risk management and risk controlling systems. Concerning cross-functional and general company-specific risks and opportunities please refer to the information provided in the Report on Future-oriented Statements.

The Management Board of pbb considers the existing risk management system according to Article 435 (1), Point (e) CRR to be generally adequate for pbb Group's risk profile and risk strategy. pbb assumes that the methods, models and processes implemented at pbb Group are suitable to ensure that a risk management and risk controlling system aligned with the business strategy and risk profile of the bank is available at all times.

The Management Board's risk declaration according to Article 435 (1), Point (f) CRR concerning the general risk profile of pbb Group associated with its business strategy and the related key ratios and figures is contained in both the Disclosure Report and the Risk and Opportunity Report of pbb Group's Annual Report 2016. pbb's Management Board confirms to the best of their knowledge that the internal risk management processes used at pbb Group are suitable to achieve a comprehensive picture of pbb Group's risk profile and to sustainably ensure the bank's risk-bearing capacity at all times.

4.1 General Organisation and Risk Management Principles

Organisation

Management Board

The Management Board of pbb is responsible for the risk management system, and decides on the strategies and material issues of risk management and risk organisation at pbb Group.

The principles, methods and processes of pbb Group's risk management system are specified centrally by pbb's Risk Management and Controlling, and are applied throughout pbb Group, subject to any special requirements at single-entity level. The risk management system comprises the plausible and systematic identification, analysis, valuation, management, documentation, monitoring and communication of all major risks.

The following are major components of the risk management system in the responsibility of the Management Board:

- Defining, updating and communicating business and risk strategies as the basis of business activities and risk acceptance within pbb Group
- Defining and improving organisation structures within pbb Group and in particular for risk management, which ensures that all major risks of pbb Group are managed and monitored
- Adopting credit competences as a decision-making framework along the credit processes within pbb Group
- Taking decisions regarding (portfolio) management measures outside the delegated competences.

The Management Board notifies the Supervisory Board with regard to significant changes in the business and risk strategies as well as the risk profile of pbb Group. The Risk Management and Liquidity Strategy Committee (RLA) of the Supervisory Board is mainly responsible for controlling the overall risk situation and for monitoring, establishing and improving an efficient risk management system, and is also responsible for the liquidity management and assurance of pbb Group and resolves upon necessary credit approvals for credit decisions. The Management Board notifies this committee of all increases to specific allowances and the creation of new specific allowances in excess of € 5 million and also notifies this committee at regular intervals of major exposures with higher levels of risk.

The committees detailed in the following have been set up at pbb Group level with the involvement of the respective decision-makers.

Risk Committee

The Risk Committee (RC) consists of the CRO (Chairman), the CFO (Deputy Chairperson), the Chief Credit Officers REF/PIF (CCO) as well as the Head of Risk Management & Control (RMC). In general, the committee meets on a monthly basis and discusses the risk development, adopts guidelines/policies, methods for risk measurement, the related parameters as well as methods of monitoring for all risk types. The RC is responsible for the development of standard guidelines of risk management and risk controlling across the Group and also monitors the development of the risk-bearing capacity, economic capital, available financial resources as well as the credit portfolio and the compliance with limits. The Risk Committee discusses the portfolio developments of pbb Group. Additional sub-committees have been established below the Risk Committee, as outlined below.

Credit Committee

The Credit Committee is chaired by the CRO or a CCO. As a general rule, the committee meets at least once a week and takes credit decisions on new business, prolongations and material changes that fall within the scope of its authority. It also votes on all credit decisions which are in the responsibility of the Management Board or which have to be approved by the Risk Management and Liquidity Strategy Committee. The responsible decision-makers should ensure that the credit decisions are consistent with the prevailing business and risk strategy.

Watchlist Committee

The Watchlist Committee is chaired by the CCOs (with delegation opportunities to a Senior Credit Executive) and meets every month. All exposures identified by the early warning system are discussed and, if appropriate, individual measures are decided there; these measures have to be subsequently implemented by the relevant departments. Where necessary, the committee takes decisions regarding the need to transfer exposures to CRM REF Workout, which then takes the necessary steps for restructuring or workout on the basis of an individual exposure strategy. All necessary credit decisions are taken by the key personnel in line with the allocation of credit powers or in the Credit Committee.

Risk Provisioning Committee

If there are any objective indications of an impairment in accordance with IAS 39.59 of an exposure, the extent of the impairment is first determined and the result is presented in the Risk Provisioning Committee (RPC). It is chaired by the CRO. The Risk Provisioning Committee (RPC) decides upon the recognition and release of loan loss provisions, within the scope of a predefined assignment of approval powers and in accordance with IFRS and the German Commercial Code (HGB); where the RPC cannot take a final decision, it issues a recommendation. The RPC also decides upon any foreclosures which may be necessary. The recommendations made by the committee form the basis of decisions to be made by the pbb Management Board in line with the relevant set of rules governing powers.

New Product Process Committee

The New Product Process Committee ensures that, before business commences with new products or in new markets, the resultant risks as well as the related impact on processes, controls and the infrastructure are systematically analysed and addressed. Only after approval of new product process committee business with new products or in new markets can be started.

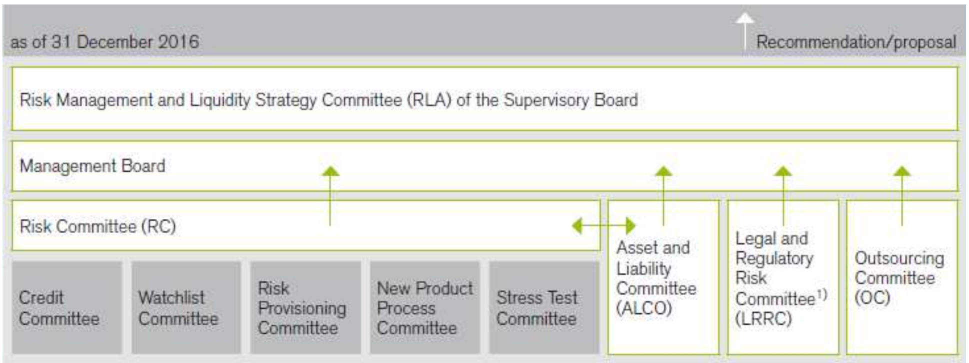
Stress Test Committee

The Stress Test Committee, which is a sub-committee of the Risk Committee, is responsible for the methodology, performance and monitoring of the internal stress tests. It is chaired by the CRO. The Committee also contributes to the preparation of scenarios for the Recovery Plan which every bank is required by law to prepare.

Asset and Liability Committee / Legal and Regulatory Risk Committee / Outsourcing-Committee

Besides the Risk Committee, there are the Asset and Liability Committee (ALCO) as well as the Legal and Regulatory Risk Committee (LRRC). The tasks of the ALCO are: managing liquidity as well as pbb Group's balance sheet structure, defining long-term financing strategies, managing capital, regulatory capital ratios, as well as market risk exposure. The LRRC advises on legal and regulatory requirements, and may assign responsibility for implementation to business divisions, following consultation. The Outsourcing Committee deals with the preparation of, and compliance with, guidelines regarding the outsourcing of activities.

Figure 2: Risk Management Organisation



[1] Reporting via Compliance.

Chief Risk Officer (CRO)

In addition to the above-mentioned committees, the following organisation units of the CRO, form an integral part of the risk management system of pbb Group:

Figure 3: Chief Risk Officer Organisation

The organisation of the CRO function comprises the following monitoring and back-office units at pbb Group level:

- The unit Risk Management & Control, which is amongst others responsible for monitoring market, credit, operational and liquidity risks as well as the risk-bearing capacity of pbb Group and which is also responsible for Group-wide uniform risk measuring methods and risk reports.
- The units of the Chief Credit Officers REF/PIF of pbb Group, which are each responsible for the analysis of new business and portfolio management. In addition to the traditional loan departments, CRM REF also comprises the Workout (Real Estate) unit, which is responsible for the recovery and workout of all critical exposures in the Real Estate Finance segment, and the central unit Credit Processes, which is responsible in particular for the organisation of the Credit Committee and implementation of regulatory requirements in the credit processes.
- The unit Operations, which is responsible for the global servicing and administration of the loan portfolio (including technical implementation of loan agreements), settlement of capital markets transactions, administration and processing of the Group's securities and derivatives portfolios, as well for handling domestic and international payments.
- The unit Property Analysis & Valuation, which is responsible for the analysis and uniform valuation of properties serving as collateral, using market valuation and loan-to-value methods.

In addition to the CRO function, the Corporate Office/Compliance entity and the Group Internal Audit entity (independent) complement the risk management system of pbb Group. Compliance has established checking and reporting processes with regard to money laundering, sanctions, embargos and other criminal acts, as well as for other Compliance topics. Moreover, Compliance is responsible for the central coordination of key controls within the framework of the Internal Control System. Corporate Office/Compliance is also represented in various committees. The area of responsibility of Group Internal Audit comprises risk-oriented regular as well as event-driven audits of processes, controls and systems. This also includes the revision of the risk management system. Regarding legal issues Risk Management is also supported by the Legal department.

Risk Strategy and Policies

Together with pbb's business strategy, the risk strategy forms the foundation for pbb Group's further planning. The risk strategy has been defined on the basis of the Group-wide risk tolerance; it reflects pbb Group's strategic direction as a specialist for real estate finance and public investment finance with a focus on Pfandbrief funding. Subject to any special requirements at single-entity level, the risk strategy is applicable for pbb Group's operating segments and legal entities. It is reviewed at least annually, and updated if applicable.

The risk strategy was last revised during the course of the annual strategy development process in February 2016, and adopted by the Management Board on 23 February 2016. The risk strategy was presented to the Risk Management and Liquidity Strategy Committee of pbb's Supervisory Board for acknowledgement, and approved by the plenary meeting of the Supervisory Board on 26 February 2016. The risk strategy was updated during the course of the third quarter of the year under review. It was adopted by the Management Board on 26 July 2016 and approved by the Supervisory Board on 12 August 2016. There were no further updates during the course of 2016. The next update of the risk strategy is scheduled to take place during the annual strategy development process for 2017.

The operationalisation of the risk strategy is carried out via risk policies for the individual operating segments as well as for all major risk types (credit risk, market risk, liquidity risk, business risk, property risk, pension risk and operational risk); these risk policies describe risk measurement, risk monitoring, risk management, the limitation process as well as the escalation process if a limit is exceeded. The policies are regularly reviewed and updated where necessary.

Risk Reporting

Risk reporting reflects the structure of the operating segments. The Management Board of pbb receives regular risk reports which include an extensive overview as well as detailed information concerning the risk situation for each risk type as well as other management-relevant information. The supervisory bodies are also notified of risk-relevant issues at regular intervals. In addition, special reports are prepared on an ad hoc basis or at the request of the Management Board or Supervisory Board; such special reports consider specific and acute risk issues, for instance in relation to critical markets, products or counterparties.

Risk Quantification, Risk Control and Management

For the purposes of systematically identifying and analysing potential risks arising from the business model or pbb Group's external environment, the Group carries out a comprehensive risk inventory once a year. The objective of this risk inventory is to establish a complete and meaningful risk profile which assesses all identified risks as to whether they are material for pbb Group and, where possible, quantifies them using applicable risk models or other methods. Risks which cannot be quantified (or only in part) are monitored and managed using dedicated capital buffers or separate management tools, as well as by way of regular, detailed reports and clearly-defined requirements such as the Compliance and Corporate Governance guidelines.

As part of its risk strategy, pbb Group has implemented four approaches to risk and capital management, which pursue different objectives: besides two approaches under the Internal Capital Adequacy Assessment Process (ICAAP), the risk strategy also provides two approaches according to which the Group manages regulatory capital and focuses on its liquidity position.

pbb Group's risk management is therefore based on the following approaches or objectives:

- to ensure compliance with minimum regulatory capital ratios, via the going-concern approach of the ICAAP
- to protect senior creditors in the event of liquidation, via the gone-concern approach of the ICAAP
- to ensure the regulatory capital base, in order to monitor the own funds ratio as well as the CET1 ratio
- to monitor the liquidity status, in order to ascertain pbb's ability to meet its payment obligations at all times.

Besides the measurement, limitation and monitoring of risks, all risk management approaches also comprise regular reporting as well as escalation processes; they are supplemented by scenario analyses and stress testing. Within the framework of these strategic management approaches and objectives, pbb Group defines its risk appetite – which sets out the scope within which pbb Group is prepared to assume risks.

Limit and early warning systems have been implemented, in line with the risk appetite, for each type of risk as well as across risk types, at the level of capital management circuits. The strategy underlying the respective type of risk, together with the associated risk definition, risk calculation methods, and risk reporting systems are described in detail in the following chapters.

Internal Audit Function as Part of the Risk Management System

The need for an internal audit function is based on specific legal provisions, e. g. Section 25a (1), Sentence 2 No. 3 KWG in conjunction with MaRisk (Minimum Requirements for Risk Management according to BaFin; in particular AT 4.4.3 in conjunction with BT2) and Section 91 (2) AktG.

For this purpose, the internal audit function is an integral part of the internal control systems. The internal control system ("IKS") comprises all types of control activities which are directly or indirectly integrated into the workflows to be monitored (= process-oriented control). The internal audit function is the Management Board's instrument for risk-based monitoring of operating and business procedures, risk management, risk controlling as well as the internal control system IKS (= process-independent control).

The Management Board confers on the internal audit function the right of initiative including the authorisation to directly communicate with every employee so as to audit any activity or business unit and get access to all documents, files or data of the bank, including management information and minutes of all advisory and decision-making bodies whenever this appears to be relevant within the framework of their task. This includes (physical) access to all rooms as well as technical access to IT systems.

In line with the institutions salary regulation, the internal audit function is independently involved in the compensation system monitoring process (according section 2 (9) in conjunction with section 3 (3) institute renummeration regulation (InstitutsVergV).

The internal audit function directly reports to pbb's Management Board. The Chairman of the Supervisory Board/Audit Committee may request information directly from the head of the internal audit function by involving the Management Board. Furthermore the head of the internal audit function regularly reports audit results to the Audit Committee.

Generally the audit activities must cover all operating and business procedures, activities and processes based on a risk-oriented audit approach, taking account of the potential amount of damage and the probability of occurrence.

Specifically the following items are subject to auditing as defined in MaRisk (Minimum Requirements for Risk Management according to BaFin):

- internal control system (IKS)
- risk management and controlling processes
- reporting system and information systems
- finance and accounting
- compliance with applicable legal and regulatory provisions and other provisions
- compliance with company guidelines, rules and regulations
- security of assets.

Audits also include outsourced functions. Furthermore, the tasks of the internal audit function comprise special audits commissioned by the Management Board. The internal audit function also has to accompany major projects while ensuring its independence and it must be informed upfront of any major projects so as to be able to define the type and scope of project support in good time.

The internal audit function has a complete and unlimited information right which must be guaranteed at all times. The requested information and documents have to be promptly delivered to the internal audit function, and the internal audit function must be allowed to view the activities and processes as well as the IT systems.

In addition, all organisational units must inform the internal audit function without being solicited when serious defects or considerable damage have occurred in their area of competence or in the event of an initial suspicion.

In particular any important risk-related information must be immediately communicated to the head of the internal audit function as well as to the management team and the responsible staff.

4.2 Economic Capital and Risk-Bearing Capacity

Internal Capital Adequacy Assessment Process (ICAAP)

Pursuant to section 91 (2) of the German Stock Corporation Act (AktG) and section 25a (1) of the German Banking Act (Kreditwesengesetz – "KWG"), credit institutions are obliged to set up adequate and effective internal procedures to determine and sustainably maintain their risk-bearing capacity. The Internal Capital Adequacy Assessment Process (ICAAP) is the subject of regulatory reviews (within the Supervisory Review and Evaluation Process – SREP); it complements the regulatory procedures under Pillar 1 of the Basel III framework, as laid down in the Capital Requirements Regulation ("CRR") and the Capital Requirements Directive IV ("CRD IV").

The risk inventory carried out in 2016 identified market risk, credit risk, business risk, operational risk and property risk as higher-level risks having an impact on capital and income; accordingly, these five types of risk were included in the ICAAP, and are being quantified using models or other methods. Within these types of risk, there are additional sub-risks on a granular level which were taken into account in the ICAAP during the period under review. Certain material types of risk, such as extension risk, settlement risk, realisation risk for defaulted loans, or pension risk, are integrated into the ICAAP in the form of buffers which are validated on a regular basis. Liquidity risk in the narrower sense is not being taken into consideration as part of calculating the risk-bearing capacity, since the Group's solvency is ascertained through a separate management approach.

pbb Group has implemented a risk-bearing capacity analysis based on the ICAAP. This analysis uses the concept of economic capital to quantify risk. Economic capital is defined as the quantity of capital required by a bank in order to cover the potential losses with a defined probability (the confidence level) over a time horizon of one year. It is calculated for all relevant types of risk, and aggregated to form total economic capital (after diversification effects). Evidence of the bank's risk-bearing capacity is provided by comparing aggregate diversified economic capital to the corresponding available financial resources: If the latter exceed the former, the risk-bearing capacity is evidenced.

To evidence its risk-bearing capacity, pbb Group applies a going-concern approach as one of two management approaches: this is explicitly based on the assumption that business will continue, and the bank's specific minimum regulatory capital ratios, as defined by the SREP, will be complied with. For this purpose, minimum ratios derived from SREP requirements are protected, thus ensuring that the pbb Group will remain sufficiently capitalised, even upon occurrence of an adverse economic scenario and the associated losses.

In addition, pbb Group has also implemented a gone-concern approach as an additional management approach. The objective of the gone-concern approach is to protect senior creditors in a hypothetical liquidation scenario, after the bank has incurred extreme losses. Besides a higher confidence level, the gone-concern approach encompasses a different level of available financial resources and different risk exposures in the liquidation scenario, compared to the going-concern approach. Moreover, given the assumed liquidation, the gone-concern approach also takes hidden losses as well as credit spread risks of securities in the banking book into consideration.

The methods of calculating economic capital for the individual risk types, as well as current risk indicators, are described in greater detail in the following subsections.

Over and above the risk-bearing capacity analysis, the ICAAP comprises additional management tools, including a system of limits and early-warning thresholds, as well as a comprehensive monthly monitoring and reporting process. Moreover, stress tests are employed to analyse the impact of hypothetical developments on the risk-bearing capacity.

The results of the ICAAP and of the stress tests are regularly presented to the Management Board and the Risk Committee. The results are discussed there and if necessary management measures are defined.

Methods used for the individual Risk types

Economic capital for quantifiable risks is determined using models or scenario analyses, and aggregated into overall bank risk using a mathematical-statistical approach, taking specific correlations between market and credit risks into account. Risks are calculated for a one-year period, using a confidence level of 99.91 % for the gone-concern and 95 % for the going-concern approach.

The methods of calculating economic capital for the individual material risk types for 2016 are explained below:

Credit Risk in the ICAAP

For calculating the credit risk at the portfolio level, pbb Group uses a credit portfolio model which is based on the approach of a so-called asset value model. The fundamental concept used involves the repeated simulation of correlated rating migrations for borrowers, whereby the associated portfolio revaluation is used to derive a statistical distribution of losses – which is in turn used to derive economic capital in terms of unexpected losses. Economic capital quantifies the maximum unexpected loss, given a pre-defined confidence level, which may be incurred due to rating migrations (including defaults) in the lending business within a single year. Besides the loss distribution of the credit portfolio, as a significant result of this process, credit risk capital can be assigned to individual borrower units in line with the risks involved, using the so-called expected shortfall principle. This enables a fair, risk-adequate allocation to borrowers, and thus constitutes a major cornerstone in the risk-oriented management of the credit portfolio. During the observation period, correlations between borrowers, borrower groups and regions were reviewed during the course of the regular validation process; updated correlations were applied during the fourth quarter of 2016.

Credit risk reported comprises default and migration risk, transfer and conversion risk, as well as concentration risk. Certain elements of credit risk, such as the realisation risk for defaulted clients, settlement risk, and extension risk are not reported directly as part of credit risk, but are instead taken into account as deductions from available financial resources. The credit portfolio model is used to examine the appropriateness of these deductions on a regular basis. Furthermore, tenant risk is backed by capital using a buffer for risks which can only be partially quantified, or which cannot be quantified at all.

Market Risk in the ICAAP (including Pension Risk)

The purpose of calculating economic capital for market risk is to identify potential financial losses resulting from price changes affecting all positions. In this process, the potential non-systematic losses are derived from an analysis of historical time series of specific influencing factors (risk factors), including interest rates, exchange rates and credit spreads, over the preceding seven years. The seven-year horizon ensures that economic phases which were not favourable for the bank are also taken into account in the model. Ultimately, using a simulation procedure and applying sensitivities of financial instruments to risk factors, the annual loss distribution of portfolio market value is determined, which allows to determine economic capital at the set confidence level.

The market risk methodology was developed further during the period under review: one of the changes implemented involved the inclusion of legal provisions with regard to negative interest rates in the measurement of financial instruments. Moreover, in the market risk model, the measurement of spread risk for liquid bonds was aligned with that of illiquid bonds; as a result (and in line with established market standards), all spreads are now defined relative to an overnight index swap (OIS) curve. Furthermore, risks from credit valuation adjustments (CVA), debt valuation adjustments (DVA) and funding valuation adjustments (FVA) for derivatives positions were integrated into market risk modelling for the first time during the period under review.

With pension risk, an additional facet of market risk was incorporated into the risk-bearing capacity analysis in 2016. Pension risk is defined as the risk of incurring additional expenses due to insufficient capitalisation of pension obligations from defined benefit plans. This type of risk is influenced most strongly by changes in the discount rate; it is quantified by way of simulating historical interest rate developments in the market risk model. However, pension risk is not disclosed directly under market risk; instead, it is deducted from available financial resources in the form of a buffer which is validated on a regular basis.

Operational Risk in the ICAAP

Within the framework of the ICAAP, operational risk is quantified using the standardised loss distribution approach (LDA), whereby distributions for damage amounts and frequency are determined individually, using internal loss data from the loss database. External and scenario-based data is also included in the modelling approach. The full loss distribution is generated using Monte Carlo simulation techniques; diversification effects between the various sub-types of risk and modelling categories are not being considered. Furthermore, care should taken to ensure that the economic capital figure calculated for operational risk does not fall short of a floor defined at 90 % of adjusted regulatory capital determined in accordance with the standardised approach pursuant to the EU Capital Requirements Regulation (575/2013 (EU) – “CRR”). Sub-types of operational risk which can only be partially quantified, or which cannot be quantified at all, are covered by way of a capital buffer.

Business Risk in the ICAAP

pbb Group generally defines business risk as the risk of reductions in profit, due to changes in the external business environment which affect the Bank’s economic conditions. Business risk comprises risks to income, which also include concentration risks, as well as funding risk. Adopting a conservative approach, planned income from new business is fully excluded from available financial resources. Funding risk comprises funding requirement risk (defined as the risk of an unexpected increase in funding costs, due to higher funding requirements) and funding spread risk (defined as an increase in funding costs due to widened funding spreads); this is mapped to business risk via scenario-based approaches, and reported accordingly. Unquantifiable risks such as regulatory or strategic risk are backed by capital using a buffer for risks which can only be partially quantified, or which cannot be quantified at all, deducted from available financial resources.

Property Risk in the ICAAP

pbb Group’s property risk is calculated using a mathematical-statistical model that enables the Bank to make statements on the probability of potential declines in the value of properties in its portfolio. Model parameters are essentially based on time series of representative real estate indices for the individual properties of the portfolio, and on valuations of individual properties.

Liquidity Risk in the ICAAP

Capital backing of liquidity risk in the narrower sense is not possible. Liquidity risk in the broader sense – i.e. the risk of higher funding costs for unexpected potential funding requirements, is mapped in economic capital for business risk.

Result of the Risk-Bearing Capacity Analysis

Going-Concern

The going-concern approach explicitly focuses on protecting regulatory minimum capitalisation, and hence, on the continuation of pbb Group’s business activities during periods of difficult economic downturns. In order to prove the risk-bearing capacity the first step is to calculate the economic capital, using a confidence level of 95 %. This includes the risk types which pbb Group defines as being material, namely credit risk, market risk, operational risk, funding risk (as part of the business risk), and property risk.

Table 26: Risk-Bearing Capacity based on a Going-Concern Approach

All figures in € million

Risk types	Going-concern: Economic capital 31.12.2016	Going-concern: Economic capital 31.12.2015	Going-concern: Economic capital Change
Credit risk	188	221	-32
Market risk	177	155	22
Operational risk	21	41	-20
Business risk	-	-	-
Property risk	1	4	-2
Total before diversification effect	**387**	**420**	**-33**
Total after diversification effect	**357**	**390**	**-33**
Available financial resources (free capital)	955	1,610	-655
Excess capital (+) / capital shortfall (-)	+ 598	+ 1,220	-623

A decline in diversified risk was observed at the reporting date. The increase in economic capital for market risk, mainly attributable to the first-time inclusion of economic capital for CVA, DVA and FVA risks from derivatives positions, as well as to adjustments in the measurement of liquid bonds, was more than offset by the decline in economic capital for credit risk and operational risk.

Credit risk declined mainly on account of updated correlation data in the credit portfolio model during the fourth quarter of 2016, whilst the decrease in operational risk was due to model updates.

Lower property risk was largely due to the sale of a property in Hungary, as well as to partial writeoffs of foreclosed assets in Spain and Germany.

This is opposed by available financial resources in the form of so-called free capital, largely comprising available CET1 capital, plus accrued profits, less the CET1 capital necessary for covering the regulatory bank-specific minimum ratios according to SREP and additional adjustment items. In accordance with the principle of prudence, an additional charge in relation to risk-weighted assets is taken into account in order to determine the CET1 capital necessary for covering the regulatory minimum ratios. The free capital is calculated both on the basis of current figures, as well as on planned values over a time horizon of one year. The lower free capital arising from these calculations is used as available financial resources in the going-concern approach. The significant decline in free capital was mainly attributable to higher minimum regulatory requirements for Pillar 2. Year-end figures for 2015 had been based on capital ratios in accordance with the CRR ; since the beginning of 2016, the bank has applied a higher CET1 ratio to be protected, derived from the bank's individual CET1 ratio, as defined in the SREP. The higher CET1 ratio to be protected, as well as planning for higher RWA levels (as adopted during the second half of the year), both increased the level of capital tied up for regulatory purposes – free capital was reduced accordingly.

The reduction in economic capital (after diversification effects) and the simultaneous decline in available financial resources together led to lower excess coverage. Proof of pbb's riskbearing capacity as at the reporting date was thus evident in this approach.

Gone-Concern

Supplementing the going-concern approach, pbb Group uses a gone-concern approach (liquidation perspective) as an additional, parallel management approach. The objective of the gone-concern approach is to guarantee protection of senior lenders in a hypothetical liquidation scenario, with a very high probability. pbb Group has selected a confidence level of 99.91 % that is harmonised with the generally conservative parametrisation of the models. However, this liquidation scenario does not assume an opportunistic winding up of portfolios as postulated by the German Pfandbrief Act, and instead assumes an immediate sale of assets recognised at fair value and of securities in the investment book. In line with this assumption, over and above the material risks from the going-concern approach (as mentioned above), credit spread risks arising from securities in the banking book are additionally taken into account when calculating economic capital for market risk, whilst net hidden losses attributable to these securities is deducted when determining available financial resources. Furthermore, rating migration risks are included (as part of credit risk) for all positions of the credit portfolio.

Table 27: Risk-Bearing Capacity based on a Gone-Concern Approach

All figures in € million

Risk types	Gone-concern: Economic capital		
	31.12.2016	31.12.2015	Change
Credit risk	1,140	1,249	-109
Market risk	916	1,072	-157
Operational risk	85	86	-1
Business risk	15	35	-20
Property risk	2	6	-4
Total before diversification effect	**2,158**	**2,448**	**-291**
Total after diversification effect	**1,951**	**2,221**	**-271**
Available financial resources before hidden losses	3,267	3,243	24
Hidden losses	-	-	-
Available financial resources	**3,267**	**3,243**	**24**
Excess capital (+) / capital shortfall (-)	+ 1,316	+ 1,021	295

Diversified economic capital declined significantly during the period under review, mainly due to lower market risk, credit risk, and business risk.

Market risk was largely reduced due to the first-time inclusion of legally-valid floors for negative interest payments into measurement, but also due to the adjustments to measurement of liquid assets using spreads over OIS curves. This decline was only partially offset by the first-time inclusion of CVA, DVA and FVA risks.

The decline in credit risk was largely driven be the inclusion of guarantees extended by an Austrian Federal state, and by a general reduction of exposures in the Value Portfolio. In particular, lower concentration of Portuguese public-sector debtors led to a reduction in economic capital – an effect that was only partly offset by updated (increased) correlations between public-sector borrowers in the credit portfolio model.

Business risk was lower year-on-year, reflecting lower funding risk, mainly due to issuance of unsecured benchmark bonds, a reduction of excess coverage requirements for Pfandbrief issues, and the sale of securities which are not eligible for central bank refinancing (Heta bonds).

As in the going-concern approach, lower property risk was largely due to the sale of a property in Hungary, as well as to partial write-offs of foreclosed assets in Spain and Germany.

The change in the risk contribution from operational risk was the result of model adjustments carried out.

Given the changes outlined above, overall economic capital after diversification effects declined, whilst available financial resources increased slightly, due to profits, despite a lower level of eligible subordinated capital. Overall, an increase in excess coverage was observed in 2016, thus providing evidence of the risk-bearing capacity in the gone-concern approach as at the reporting date as well.

Should the European sovereign debt crisis escalate again, with credit spreads and credit ratings of numerous European debtors worsening as a consequence, a corresponding increase in credit risk as well as of net hidden losses is to be expected, notwithstanding any countermeasures taken.

Opportunities

The pbb Group observed a widening of credit spreads on the bond markets of some Southern European countries during the course of 2016. If confidence in European sovereign budgets were to be fully restored, narrowing credit spreads and systematic rating improvements for public-sector issuers might reduce risks, thus further strengthening available financial resources and hence, excess coverage in the ICAAP.

Stress Tests

Stress tests play an important role, both from a supervisory perspective and for the Bank's internal management. All activities, developments and decisions relating to stress tests are brought together within the Stress Test Committee, which reports directly to the Risk Committee.

As part of an integrated approach, the impact of macroeconomic stress scenarios on all material risks and on available financial resources under stressed market parameters were calculated for a horizon of several years during the period under review. These scenarios focus on an escalation of the sovereign debt crisis and on unfavourable developments on the real estate markets.

Furthermore, stress tests relating to economic capital and available financial resources are used to obtain a deeper understanding of the sensitivity of risk-bearing capacity to adverse changes in economic factors. In addition, inverse stress tests are conducted regularly. The results of these tests describe specific constellations of parameters under which the risk-bearing capacity would be at risk.

SREP

The objective of the Supervisory Review and Evaluation Process ("SREP") is a comprehensive analysis of institutions supervised by the ECB – comprising an assessment of the business model, risk and corporate governance, risk situation, as well as capitalisation and liquidity status.

Based on the results of the analysis as well as using benchmark comparison, the ECB may impose minimum capitalisation or liquidity requirements, over and above existing regulatory requirements. As a key result of SREP, a minimum common equity tier 1 (CET1) ratio of 10.75 % was set for pbb Group in 2016, which the Group complied with at all times during the year under review. A limit system was used that should ensure ongoing compliance with the prevailing SREP ratio. A 'traffic light' system and regular reporting within the Group Risk Report should ensure that any potential shortfall can be detected at an early stage, and that senior management can be informed accordingly.

Toward the end of the year, the ECB notified pbb Group of the regular annual re-determination of minimum capital requirements for 2017: with effect from 1 January 2017, pbb Group has been required to maintain a minimum CET1 ratio of 9.00 % (excluding the countercyclical capital buffer, which varies according to country, and hence, for specific portfolios – as at 31 December 2016, it stood at 0.08 %). This capital requirement is based on the Basel III transitional rules and comprises a Pillar 1 minimum capital requirement (4.50 %), a Pillar 2 capital requirement (3.25 %) and the capital conservation buffer (1.25 % phased-in for 2017). The minimum, fully phased-in CET1 ratio (valid from 2019 onwards, following expiration of transitional provisions) will be 10.25 %, assuming a constant Pillar 2 capital requirement and excluding the countercyclical capital buffer. The CET1 minimum capital requirement that applies for 2017 also represents the threshold for mandatory calculation of a so-called maximum distributable amount (MDA). This generally limits distributions to the CET1 capital, new performance-based remuneration, and interest payments on additional Tier 1 capital.

Under the newly-introduced own funds requirement, introduced with effect from 1 January 2017, pbb Group has been required to maintain an own funds ratio of 12.50 % (excluding the countercyclical capital buffer, which varies according to country, and hence, for specific portfolios – as at 31 December 2016, it stood at 0.08 %). It is based on the Basel III transitional rules and comprises a Pillar 1 minimum own funds requirement (8.00 %), a Pillar 2 capital requirement (3.25 %) and the capital conservation buffer (1.25 % phased-in for 2017). The minimum, fully phased-in own funds ratio (valid from 2019 onwards, following expiration of transitional provisions) will be 13.75 %, assuming a constant Pillar 2 capital requirement and excluding the countercyclical capital buffer.

4.3 Exposure Categories

pbb Group distinguishes the following major risk types for its business activities:

- Credit risk
- Market risk
- Liquidity risk
- Operational risk (including legal risk)
- Property risk
- Pension risk
- Business risk.

The following are major risk types of pbb Group which are not quantified but which are limited by means of suitable reports, guidelines and policies:

- Strategic risks
- Regulatory risks.

5 Credit Risk

5.1 Management of Credit Risk (Counterparty Credit Risk)

Definition

The credit risk in general is defined as the risk of an unexpected default or decline in the fair value of a receivable (loan or bond) or a derivative, resulting from a deterioration in the hedging situation or deterioration in the creditworthiness of a country or a counterparty.

The credit risk comprises the loan risk, counterparty credit risk, issuer risk, country risk, concentration risk, fulfilment risk, tenant risk, realisation risk (related to defaulted clients) and extension risk, which are defined as follows in pbb Group's risk strategy:

Loan Risk

Loan risk is defined as the risk which considers loans and traditional credit products. A major factor determining the loan risk is the ability of the borrower to fulfil his financial obligations as well as the value of collateral in the case of a borrowers' default. Declines in the fair value as a result of rating changes are taken into consideration for risk measurement within the framework of Pillar II.

Counterparty credit risk

Counterparty credit risk is defined as the risk of a potential unexpected default or decline in the fair value of a claim or a derivative. This is due to a deterioration in the creditworthiness of a counterparty or a deterioration of the hedging situation. The counterparty credit risk includes the replacement risk and the repayment risk.

Issuer Risk

Issuer risk is defined as the risk in relation to bonds and other securities. In particular, it refers to the ability of the issuer to meet his financial obligations and also relates to the value of collateral in the event of the default of an issuer. Declines in the fair value as a result of rating changes are taken into consideration for calculating the issuer risk.

Country Risk

Country risk arises from changes in the values of international exposures due to country-specific political and economic conditions. It essentially comprises the risk that arises in connection with business activities in certain countries. The country risk includes the conversion risk, transfer risk and sovereign default risk.

Concentration Risk

Concentration risk is defined as the risk of cluster formation in relation to a risk factor or counterparty, or a strongly correlated group of risk factors or counterparties.

Fulfillment Risk

Fulfilment risk is defined as the risk that the Bank makes a payment or delivers an asset which has been sold to a counterparty but does not receive a payment or the purchased asset.

Tenant Risk

Tenant risk describes the risk that losses in rental income for properties will negatively influence the respective borrowers' debt service capacity. In addition, it includes the secondary concentration risk (tenant cluster risk), which arises when one and the same tenant is involved in multiple properties funded by the bank.

Realisation Risk

Realisation risk occurs with defaulted clients; it is defined as the risk that actual proceeds – in the event of realisation – differ from projections, or that specific provisions or portfolio-based allowances recognised will need to be adjusted in the event of a change in expected realization proceeds.

Extension Risk

Extension risk is defined as the risk that migration and default risks increase as a result of an unexpected extension of the holding period.

Risk Strategy and Principles

pbb Group has broken down the overall credit portfolio into the segments Real Estate Finance (REF), Public Investment Finance (PIF), Value Portfolio (VP) and "Consolidation & Adjustments" (C&A). The strategic business is attributable to Real Estate Finance (REF) and Public Investment Finance (PIF). The risk strategy of pbb Group also reflects this structure.

Concerning the business focus in relation to the strategic portfolios and the statements on the strategy in the expiry portfolio, please refer to the explanations in chapter 1.1 "Organisational and legal structure".

Risk Reporting

The credit risk reports of pbb Group provide information about the following main components:

Group Risk Report

The pbb Group Risk Report contains the development in volumes as well as relevant credit risk management indicators such as the development of the expected loss as well as the unexpected loss via value at risk (VaR). The report shows the credit risk at the level of pbb Group in the context of the overall bank risk and the risk-bearing capacity, it reports limit utilisations and violations of existing limits, and also identifies risk concentrations. Key indicators, such as the development of the exposure at default (EAD), the expected loss (EL), the credit value at risk (Credit VaR) as well as problem loans are integrated in this report and are discussed by the Management Board.

The report is also submitted to the "Risikomanagement- und Liquiditätsausschuss (RLA) of the Supervisory Board to be noted.

New Business

For decisions to be made regarding new business, or regarding material changes to the credit quality of existing financings (such as a maturity extension), key financial indicators, content and analysis are presented to, and discussed by the Credit Committee.

Active Business

In the active business, further regular reports support operational management with regard to the management and timely recognition of risks at the sub-portfolio level.

Unusual Developments

Unusual developments which might result in a major deterioration in the risk position of an individual exposure are reported to a wider group up to the CRO by way of so-called “Credit Issue Notes”.

Risk Quantification

Credit Portfolio Model

For calculating the economic capital for credit risk pbb Group uses a credit portfolio model. For details concerning this model and economic credit risk quantification, please refer to chapter 4.2 “Economic Capital and Risk-Bearing Capacity”.

Stress Tests

The stress tests for economic capital in credit risk are described in greater detail in chapter 4.2 “Economic Capital and Risk-Bearing Capacity”.

In addition to the stress tests for economic capital, there are also RWA reverse stress tests. They investigate the extent to which a certain risk parameter (e. g. rating, loss given default (LGD), currency) can change before a minimum common equity ratio (CET1) is no longer met. The minimum level for the common equity tier 1 (CET1) ratio is derived from the bank’s individual SREP CET1 ratio. Tolerance change levels have been defined for all tested risk parameters; these levels must not be violated if the test of pbb Group is to be successfully completed.

Risk Quantification according to CRR

The Basel III Framework Agreement of the Basel Committee was implemented in the European context by means of the Capital Requirements Regulation (“CRR”). pbb Group applies the so-called Advanced Internal Rating-Based Approach (Advanced IRBA) for determining the regulatory capital backing.

Risk Management and Monitoring

Credit Risk Management

At the portfolio level, the intended portfolio structure is defined in the risk strategy by means of structure components. The limits are also based on the available financial resources, and include for pbb Group for example:

- Limiting of country risks
- Definition of strategic risk parameters (e. g. regions, financing duration).

The following reports and measures are key elements for monitoring compliance with the defined limits and the intended risk and return parameters at the portfolio level and also at the level of individual transactions:

- Analysis of portfolio developments in the Risk Committee
- Determining the credit-VaR at the portfolio level by way of a credit portfolio model and partly limiting at the segment level; analysis of concentration risks and various stress tests
- Central Group-wide monitoring of risk concentrations by way of special, regular and ad hoc evaluations, such as regional or product-specific evaluations
- Continuous analysis of the portfolio and the relevant markets by the local Credit Risk Management units
- Regular evaluation of the collateral

- Special reports for exposures which are potentially at risk (e. g. "credit issue notes")
- Calculation of a risk-adjusted margin using the economic return after tax.

Depending upon the counterparty group, Expected Loss class or exposure size at GCC (Group of connected clients) level, the lending authority regulations determine the approval powers of individual Credit Officers for new or existing exposures. Moreover, lending authorities for new business are defined by reference to individual credit risks.

Credit Risk Management and Monitoring

At the level of individual transactions, the credit process guidelines define the necessary steps of assessing risk for new business, prolongations as well as the procedures for transferring exposures to the watchlist or workout.

Core processes of credit risk management and monitoring as well as the relevant areas of the CRO function which are involved are described in the following:

The CRM entities carry out the initial risk analysis for new business and annual risk analysis for existing business. Probability of default (PD) and loss given default (LGD) rating tools, which are developed by Credit Risk as part of RMC and annually validated and calibrated, are used for valuation purposes and for preparing the credit decision in new and prolongation business. Property Analysis & Valuation (PAV) provides support for analysing and valuing collateralised properties.

The Legal department, where appropriate together with external lawyers/lawyers' offices, is responsible for the contract and collateral organisation.

Defined early warning indicators are constantly monitored by CRM. If essential problems are identified, an exceptional test is performed on the credit default risk (including a review of the value of collateral) and appropriate alternative actions are identified. Such cases are also included in a monthly, at least quarterly monitoring cycle and presented in the Watchlist Committee.

If there are any objective indications of an impairment, the extent of such an impairment is determined. In the Risk Provisioning Committee, the results are discussed and, where necessary, decisions are taken with regard to creating or reversing impairments.

A restructuring plan or workout plan is drawn up for critical or impaired exposures, as part of an individual strategy. The decision regarding restructuring or workout takes account of scenario analyses for the potential development of the borrower, the collateral or the relevant market. These analyses are presented to the Credit Committee, which approves them or issues a recommendation for approval to holders of higher lending authority.

Critical exposures (watchlist) as well as restructuring and workout cases (non-performing loans) are reported on an aggregate basis monthly in the Group Risk Report and in the Risk Committee and also, upon request, in special analyses to the Management Board and Supervisory Board.

Risk Hedging and Risk Mitigation

Real Estate Finance

In the REF segment, financing arrangements are normally backed by property charges. On theoccasion of the regular credit reports for existing financing arrangements or as part of the decisionmakingprocess in the case of new financing, the LTVs (loan-to-value) as well as the property(amongst others micro and macro location, rental situation, condition of property) and market circumstancesare discussed and are also taken into consideration as part of the assessment processfor individual loans.

In addition to the property charge, the financing security in the REF segment also generally comprisesamongst others rent assignation and the assignation of insurance claims, accompanied byextensive notification and consultation obligations of the borrowers. Apart from the property charges,only a few more selected securities are considered to be of value in the credit assessment processor in the calculation of LGD, and in particular this is applicable for cash security, furthermore undercertain circumstances bank guarantees, other credit protections as well as guarantees of public-sectorinstitutions. Corresponding haircuts are recognised in relation to foreign currency collateral,that means in a currency differing from the loan currency, in order to take account of potential exchange rate risks.

Properties in the REF business are valued using strict quality criteria. Property collateral values aredetermined when the loan is initially granted, and reviewed on an annual basis. pbb maintains a separatedepartment of real estate analysts and surveyors (reporting directly to the CRO); the majorityof staff members in this department have either passed the HypZert examination or comparableforeign qualifications (such as RICS certification). This department is always involved in the initial valuation (when a new loan is granted) or regular revaluations, as well as in the valuation reviews which are carried out at least once a year. Depending on the type and location of the property involved, market developments and other risk indicators, valuation reviews may also be carried out, in some cases, by credit department staff, based on defined parameters and processes.

For development financings, regular project monitoring comprises the monitoring of planning progress, budget, procurements, construction schedule, sales/letting progress and construction stage, amongst other factors. As a rule, for complex developments, such monitoring is carried out by renowned external project monitors on the bank's behalf, coordinated by PAV – usually on a monthly, but at least on a quarterly basis. For less complex residential real estate developments, construction progress is generally monitored, every three months, by experienced internal property analysts. CRM always monitors costs, thus facilitating a current overview of actual costs, as well as a cost projection for development projects, which is reconciled against the results of internal monitoring (as well as external monitoring, if applicable). This allows for recognition of any divergence from project planning (and hence, project risks during construction) as early as possible.

Public Sector Finance

In the PIF segment, guarantees are often accepted as collateral (including contractual guarantees from public-sector authorities, export credit guarantees). Moreover, Public Investment Finance exposures often involve a specific legal framework, such as the support obligation (Anstaltslast) of public-sector entities, or other (direct and indirect) cover mechanisms which allow for recourse to a public-sector institution in the case of borrowers organised under public law.

Treasury

In Treasury, deposits and securities are made available or accepted as collateral when trading with other banks. The collateralisation is based on standard agreements, which can be amended in individual cases if required or which can be subjected to individual review by the legal department.

Opportunities

The parameters for the risk dimensions for the credit risk are defined using statistical methods on the basis of numerous historical observations. The risk measures also depend on assumptions relating to future developments of macro-economic factors as well as developments on the credit markets. These economic conditions may turn out to be more positive than anticipated; in which case, potential losses from counterparty credit risk may theoretically be lower than quantified by the risk measures. Such potentially positive developments then represent opportunities for pbb Group which can be utilised for reducing risk.

In specific terms, there are opportunities if fewer loans in future are affected by a default in performance than is assumed as part of the risk quantification process.

There are also opportunities if there are in future fewer migrations to less positive rating categories than assumed.

There are also opportunities if there are in future fewer migrations to less positive rating categories than assumed. There are also opportunities if the loss ratios of non-performing loans in future are lower than was assumed as part of the risk quantification process. Lower loss ratios may be triggered by various positive developments. Firstly, it is possible that the process of disposing of collateral might generate higher proceeds than was originally assumed in the risk quantification process. Secondly, it is possible that a higher percentage of non-performing loans subsequently become performing loans again without any losses than had been the case in the past.

Besides positive developments in default rates or loss ratios, opportunities may arise in connection with counterparty credit risk – theoretically, and regardless of other corporate objectives – in the event of declining portfolio exposure. For instance, this may occur if borrowers redeem or repay their loans faster than anticipated, given contractual agreements or historical data. Exposure values in the derivatives portfolio may decline where the market values of positions associated with replacement risk decrease, due to changes in certain market parameters such as interest rates or exchange rates.

5.2 General Information on Credit Risks

The Information provided in Chapters 5.2.1 “Credit Portfolio Structure” and 5.2.2 “Risk Provisioning” show pbb Group’s exposures and credit risk adjustments based on various breakdowns according to Article 442 CRR without items representing securitisation positions (these are described in chapter 5.4.3 "Securitisation”).

5.2.1 Credit Portfolio Structure

As of 31 December 2016 the exposures before credit risk mitigation techniques stood at a total of € 60,644 million (31 December 2015: € 61,508 million), of which € 58,102 million (31 December 2015: € 58,881 million) were for the internal ratings-based approach (IRB) and € 2,542 million (31 December 2015: € 2,627 million) were for the Credit Risk Standardised Approach (CRSA).

According to Article 442, Points (c), (d), (e) and (f) CRR, the following Tables show the exposures at default (EAD) before credit risk mitigation techniques, separated into IRBA and CRSA exposure classes as well as split by main regions, industries (NACE Code) and remaining maturities.

Table 28: IRBA/CRSA Exposures before Credit Risk Mitigation Techniques

All figures in € million

Exposure classes IRBA	IRBA risk positions [1]	
	Total amount	Average amount [2]
Exposures to central governments and central banks	20,414	21,229
Exposures to institutions	7,982	8,353
Exposures to corporates	29,666	28,889
Thereof: Small and medium-sized enterprises (SME)	17,385	16,635
Thereof: Spesialised lending exposures	-	-
Thereof: Other	12,281	12,254
Retail exposures	-	-
Thereof: Secured by mortgages on immovable property / SME	-	-
Thereof: Secured by mortgages on immovable property / not SME	-	-
Thereof: Qualifying revolving retail exposures	-	-
Thereof: Other retail exposures / SME	-	-
Thereof: Other retail exposures / not SME	-	-
Equity exposures	-	-
Other non credit-obligation assets	40	46
Total	**58,102**	**58,517**

1) Risk positions before deduction of individual allowances and before credit risk mitigation.
2) Based on a quarterly determination of the risk position values.

All figures in € million

Exposure classes CRSA	CRSA risk positions [1]	
	Total amount	Average amount [2]
Exposures to central governments and central banks	-	-
Exposures to regional governments and local authorities	159	149
Exposures to other public sector entities	1	1
Exposures to multilateral development banks	1,002	1,176
Exposures to international organisations	-	-
Exposures to institutions	374	126
Exposures to corporates	889	906
Retail exposures	1	1
Exposures secured by mortgages on immovable property	45	67
Exposures in default	8	8
Exposures associated with particularly high risk	-	-
Exposures in the form of covered bonds	-	-
Exposures to institutions and corporates with short-term credit assessment	-	-
Exposures in the form of units or shares in collective investment undertakings (CIUs)	3	3
Equity exposures	-	-
Other items	62	77
Total	**2,542**	**2,514**

1) Risk positions after deduction of individual allowances and before credit risk mitigation.
2) Based on a quarterly determination of the risk position values.

Table 29: IRBA/CRSA Exposures by Significant Regions

All figures in € million

Exposure classes IRBA	Europe [1]				Others [1]			
	Germany	European Monetary Union	Other EU countries	Rest of Europe	Africa	America	Asia	Oceania
Exposures to central governments and central banks	8,025	11,379	591	57	-	-	363	-
Exposures to institutions	1,699	5,720	292	83	-	186	2	-
Exposures to corporates	10,871	10,338	4,869	1,894	129	1,472	94	-
Thereof: Small and medium-sized enterprises (SME)	6,864	5,541	3,202	1,149	54	575	-	-
Thereof: Spesialised lending exposures	-	-	-	-	-	-	-	-
Thereof: Other	4,007	4,796	1,666	745	75	897	94	-
Retail exposures	-	-	-	-	-	-	-	-
Equity exposures	-	-	-	-	-	-	-	-
Other non credit-obligation assets	40	-	-	-	-	-	-	-
Total	**20,634**	**27,437**	**5,751**	**2,034**	**129**	**1,658**	**459**	**0**

1) The citerion for the regional breakdown is the country of domicile of the borrower, counterparty or issuer.
The country breakdown corresponds to the "List of countries for regional breakdown" ("Länderverzeichnis zur regionalen Gliederung") of the Deutsche Bundesbank.

All figures in € million

Exposure classes CRSA	Europe [1]				Others [1]			
	Germany	European Monetary Union	Other EU countries	Rest of Europe	Africa	America	Asia	Oceania
Exposures to central governments and central banks	-	-	-	-	-	-	-	-
Exposures to regional governments and local authorities	159	-	-	-	-	-	-	-
Exposures to other public sector entities	1	-	-	-	-	-	-	-
Exposures to multilateral development banks	-	455	85	-	-	198	264	-
Exposures to international organisations	-	-	-	-	-	-	-	-
Exposures to institutions	374	-	-	-	-	-	-	-
Exposures to corporates	102	701	-	-	-	85	-	-
Retail exposures	1	0.4	-	-	-	-	-	-
Exposures secured by mortgages on immovable property	44	0.5	-	-	-	-	-	-
Exposures in default	8	-	-	-	-	-	-	-
Exposures associated with particularly high risk	-	-	-	-	-	-	-	-
Exposures in the form of covered bonds	-	-	-	-	-	-	-	-
Exposures to institutions and corporates with short-term credit assessment	-	-	-	-	-	-	-	-
Exposures in the form of units or shares in collective investment undertakings (CIUs)	-	3	-	-	-	-	-	-
Equity exposures	-	-	-	-	-	-	-	-
Other items	62	-	-	-	-	-	-	-
Total	**750**	**1,160**	**85**	**0**	**0**	**283**	**264**	**0**

1) The citerion for the regional breakdown is the country of domicile of the borrower, counterparty or issuer.
The country breakdown corresponds to the "List of countries for regional breakdown" ("Länderverzeichnis zur regionalen Gliederung") of the Deutsche Bundesbank.

Table 30: IRBA/CRSA Exposures by Industries

All figures in € million

Exposure classes IRBA	Economic activities according NACE-Codes [1] Financial and insurance activities	Real estate activities	Public administration and defence, compulsory social security	Others
Exposures to central governments and central banks	2,131	113	17,329	842
Exposures to institutions	4,279	190	2,770	742
Exposures to corporates	1,636	24,971	230	2,832
Thereof: Small and medium-sized enterprises (SME)	873	15,742	1	771
Thereof: Spesialised lending exposures	-	-	-	-
Thereof: Other	763	9,230	230	2,061
Retail exposures	-	-	-	-
Equity exposures	-	-	-	-
Other non credit-obligation assets	-	-	-	37
Total	**8,045**	**25,274**	**20,329**	**4,454**

1) NACE regulation; Statistical classification of economic activities in the European Community; allocation on the basis of the principal activity of the counterparty.

All figures in € million

Exposure classes CRSA	Economic activities according NACE-Codes [1] Financial and insurance activities	Real estate activities	Public administration and defence, compulsory social security	Others
Exposures to central governments and central banks	-	-	-	-
Exposures to regional governments and local authorities	-	-	159	-
Exposures to other public sector entities	-	-	-	-
Exposures to multilateral development banks	1,002	-	-	-
Exposures to international organisations	-	-	-	-
Exposures to institutions	374	-	-	-
Exposures to corporates	766	103	-	20
Retail exposures	-	-	-	1
Exposures secured by mortgages on immovable property	-	32	-	13
Exposures in default	-	6	-	2
Exposures associated with particularly high risk	-	-	-	-
Exposures in the form of covered bonds	-	-	-	-
Exposures to institutions and corporates with short-term credit assessment	-	-	-	-
Exposures in the form of units or shares in collective investment undertakings (CIUs)	3	-	-	-
Equity exposures	-	-	-	-
Other items	-	-	62	-
Total	**2,144**	**140**	**221**	**37**

1) NACE regulation; Statistical classification of economic activities in the European Community; allocation on the basis of the principal activity of the counterparty.

Table 31: IRBA/CRSA Exposures by Contractual Remaining Maturities

All figures in € million

Exposure classes IRBA	Repayable on demand	With agreed maturities up to 3 months	3 months to 1 year	1 year to 5 years	5 years and over	Unspecified terms
Exposures to central governments and central banks	-	639	3,066	3,351	13,359	-
Exposures to institutions	210	76	826	1,234	5,635	-
Exposures to corporates	216	556	1,848	17,977	9,070	-
Thereof: Small and medium-sized enterprises (SME)	180	423	1,332	10,994	4,455	-
Thereof: Spesialised lending exposures	-	-	-	-	-	-
Thereof: Other	35	132	516	6,983	4,614	-
Retail exposures	-	-	-	-	-	-
Equity exposures	-	-	-	-	-	-
Other non credit-obligation assets	26	-	-	-	-	13
Total	**453**	**1,270**	**5,739**	**22,562**	**28,064**	**13**

All figures in € million

Exposure classes CRSA	Repayable on demand	With agreed maturities up to 3 months	3 months to 1 year	1 year to 5 years	5 years and over	Unspecified terms
Exposures to central governments and central banks	-	-	-	-	-	-
Exposures to regional governments and local authorities	-	-	19	82	58	-
Exposures to other public sector entities	-	-	-	-	0.5	-
Exposures to multilateral development banks	-	-	-	440	562	-
Exposures to international organisations	-	-	-	-	-	-
Exposures to institutions	-	297	-	-	77	-
Exposures to corporates	7	-	-	21	861	-
Retail exposures	-	-	-	-	0.5	-
Exposures secured by mortgages on immovable property	-	2	1	9	33	-
Exposures in default	0.3	-	-	-	8	-
Exposures associated with particularly high risk	-	-	-	-	-	-
Exposures in the form of covered bonds	-	-	-	-	-	-
Items representing securitisation positions	-	-	-	-	-	-
Exposures to institutions and corporates with short-term credit assessment	-	-	-	-	-	-
Exposures in the form of units or shares in collective investment undertakings (CIUs)	3	-	-	-	-	-
Equity exposures	-	-	-	-	-	-
Other items	62	-	-	-	-	-
Total	**73**	**299**	**20**	**552**	**1,598**	**0**

The slight decline in exposures by € 864 million compared to previous year is primarily the result of repayments and the further reduction of the non-strategic portfolios. The opposing effects were mainly the new business volume (including the rollover with more than one year) in fiscal year 2016, in particular strategic real estate financing, as well as an increase in the credit conversion factor (CCF) for mortgage loans. This led to an elevation of the risk position value for commitments not yet drawn, in particular of new business.

As at the reporting date, pbb Group's exposures are still focused on Germany and Eastern Europe. The largest part of exposures, i.e. € 21.4 billion (35 %) still exists in Germany. Exposures in the member states of the European Monetary Union (excluding Germany) amount to € 28.6 billion (47 %) and in other EU countries to € 5.8 billion (10 %).

The main focus of the sectors using the NACE codes (based on the main business activity of the counterparties) remains unchanged active in the “Real estate and renting” industry with a volume of € 25.4 billion, respectively 42 %, followed by "Public administration, defense; compulsory social secuity" of € 20.6 billion, or 34 %, and "Provision of financial and insurance services" of € 10.2 billion, respectively 17 %. The share of other economic sectors according to the NACE Code is, individually, at a maximum of 1 % of the risk positions.

5.2.2 Risk Provisioning

Impairment

According to IAS 39.58 a financial asset must be tested for impairment. At least at each balance sheet date pbb Group assesses on a case-by-case basis whether there is objective evidence for impairment. The criteria used to determine if there is such objective evidence included

- significant financial difficulties of the borrower
- overdue contractual payments of either principal or interest or other breaches of contract
- increased probability that the borrower will enter bankruptcy or other financial reorganisation
- renegotiations due to economic problems
- a decline in the fair value of a financial asset below its (amortised) cost.

Receivables at risk of default are restructured by pbb Group if the borrower's financial position has deteriorated but a positive going-concern forecast for the loan exposure can still be carried out. This is carried out by changing the underlying terms and conditions or side agreements by means of a unilateral or mutual declaration of intent. Restructuring agreements should maximise opportunities for pbb Group to realise its outstanding receivables or at least minimise the risk of default of the loan exposure. These generally include inter alia standstill agreements, lifetime extensions, changed interest payment/repayment terms, interest/repayment reductions or the suspension of contractual agreements (e. g. financial covenants) so that the borrower is again able to meet their payment obligations. The credit risk associated with restructured loans is managed by the Group's Credit Risk Management units.

pbb Group impairs loans and advances as well as financial investments whose terms have been renegotiated if there is objective evidence for impairment.

Recognition in the Balance Sheet and in the Profit and Loss Account

Two types of allowances are in place at pbb group: specific allowances and portfolio-based allowances.

Allowances for loans and advances are recognised in a separate account (allowances for losses on loans and advances) instead of directly reducing the carrying amount of the assets. The expense is recognised in provisions for losses on loans and advances through profit or loss. Changes in an impairment already recognised are recorded as a change in the allowance and also disclosed in profit or loss as a component of loan loss provisions.

Specific allowances on AfS financial investments as well as specific allowances and portfolio-based allowances on LaR financial investments are deducted directly from the carrying amount of the asset. The expense is recognised in net income from financial investments through profit or loss. Where subsequent measurement of financial assets is based on fair value through profit or loss, impairment is implied in the fair value.

pbb Group applies the accounting and valuation methods consistently to the IFRS framework as well as to IAS 1 and IAS 8. In order to increase the transparency of the disclosure of loans and advances to customers and the value adjustments on receivables, pbb Group changed its accounting method in fiscal year 2016 in accordance with IAS 8.14 ff. The amendment is described in note 3 "Continuity" of the Annual Report 2016 of pbb Group.

Amount of Value Adjustment

To measure the impairment loss, the following factors are especially considered:

- pbb Group's aggregate exposure to the customer
- the amount and timing of expected interest and redemption payments
- the realisable value of collateral and likelihood and time of successful repossession
- the likely deduction of any costs involved in recovering amounts outstanding
- the market price of the asset if available.

If there is no reasonable prospect for a repayment of the loan or advance and the collateral were realised or transferred to pbb Group, the respective loan or advance and the associated allowance is written off.

For the purpose of calculating portfolio-based allowances, financial assets measured at amortised cost for which no impairment has been identified on an individual basis are grouped in portfolios according to their credit risk. The portfolio-based allowances cover impairments which have been incurred but not yet been identified. The parameters used to determine portfolio-based allowances are checked regularly and adjusted if necessary. The allowances are determined after taking into account the following factors:

- historical loss experience in portfolios of similar credit risk characteristics
- a judgement whether current economic conditions and credit conditions improved or deteriorated compared to the past
- the estimated period between impairment occurring and the impairment being identified
- state of the current economic cycle.

Portfolio-based allowances are calculated using risk parameters which are compliant with CRR, such as probability of default (PD) and loss-given default (LGD). The resultant expected loss in relation to a time horizon of one year is scaled using an IFRS-compliant conversion factor to the period which on average is required for identifying the impairment event in the pbb.

If differences are identified between long-term average values for the parameters PD and LGD on the one hand and the current figures on the other as a result of the market environment in some portfolios of the operating segments, these are taken into consideration accordingly.

Risk Provisioning Approval

The specific allowances are approved in the Risk Provisioning Committee (RPC). The RPC takes decisions within the framework of a predefined set of allocated powers and in line with the IFRS/HGB regulations, and provides recommendations regarding the creation and reversal of provisions for losses on loans and advances as well as any necessary salvage acquisitions. The recommendations made by the committee have to be decided by the Management Board in line with the relevant set of rules governing powers. The Risk Provisioning Committee is chaired by the Chief Risk Officer (CRO).

Types of Risk Provisioning

As explained, allowances for losses on loans and advances are recognised if there is objective evidence that it will not be possible for the entire amount which is due in accordance with the original contractual conditions to be recovered. Allowances for loans and advances are measured mainly on the basis of expectations with regard to loan defaults, the structure and quality of the loan portfolio as well as macroeconomic parameters on an specific and portfolio basis.

In this sense, allowances for losses on loans and advances are broken down into allowances relating to loans and advances and provisions for contingent liabilities and other commitments like irrevocable loan commitments.

Specific Loan Loss Provisions

For all recognisable default risks, the extent of the allowance for losses on loans and advances is calculated as the difference between the carrying amount of the asset and the present value of the expected future cash flows (except future credit losses which have not been incurred). The latter is calculated on the basis of the initial effective interest rate. Market interest rate changes do not have any effect in this respect. The increase in the present value of an adjusted receivable (so-called unwinding) which occurs over a period of time is recognised as an interest income.

Portfolio-based Provisions

Under IAS 39.64, loans which were not specifically impaired are pooled in risk-inherent portfolios. Portfolio-based allowances are recognised for these portfolios; these allowances are measured in respect of current events and information with regard to significant changes with detrimental consequences which have occurred in the technology, market, economic or legal environment, as well as historical default rates.

Provisions for Contingent Liabilities and Other Obligations

The provisions for contingent liabilities and other commitments mainly comprise provisions for guarantee risks, letters of credit, irrevocable loan commitments and litigation risks in the lending business.

An allowance relating to loans and advances is disclosed as a negative item on the assets side of the statement of financial position, whereas a provision for contingent liabilities and other commitments is disclosed on the liabilities side of the statement of financial position. In profit or loss, all effects are disclosed as loan loss provisions apart from time-related increases in the present value of impaired receivables which are disclosed in net interest income.

Risk Provisioning Items

According to Article 442, Points g, h and i CRR, the following Tables show the distribution of “past due” and “non-performing” exposures by counterparty type (debtor groups) and main regions including associated amounts of individual allowances, portfolio-based allowances and provosions in the lending business.

The figures comprise value adjustments and provisions according to International Financial Reporting Standards (IFRS), which is in accordance with the accounting standards applicable to pbb Group’s consolidated financial statement. Furthermore, the terms “past due” and “non-performing” are based on the provisions of IFRS/IAS.

Past Due and Non-Performing Exposures

The categorisation of exposures as “past due” according to IFRS 7 applies to defaulting receivables if the debtor has failed to meet his/her contractual payments of interest or principal in due time.

Contrary to non-performing items, “past due” receivables are not classified as “non-performing” yet, i.e., no individual value adjustment has been recognised as pbb Group considers that it has no problems concerning the intrinsic value of the amounts concerned and the collaterals for these loans. Within the framework of normal business activity, debt repayment delays of up to 3 months are not unusual and therefore are not automatically an indication of limited intrinsic value.

Accordingly, the classification of receivables as “non-performing” (“impaired” according to IAS 39.59) is based on the recognition of an individual value adjustment, i.e., receivables are classified as “non-performing” when they are subject to an impairment as at the reporting date.

Table 32: Risk Provisioning by Significant Regions

All figures in € million

	Significant geographic areas [1]	Utilisation due to non-performing and past due loans	Individual allowances	Portfolio-based allowances	Provisions in lending	Past due loans (excl. Impairment requirement)
Europe	Germany	72	19	———	-	3
	European Monetary Union	56	10	———	-	4
	Other EU countries	216	57	———	-	-
	Rest of Europe	-	-	———	-	-
Others	Africa	-	-	———	-	-
	America	-	-	———	-	-
	Asia	-	-	———	-	-
	Oceania	-	-	———	-	-
Total		**344**	**86**	**44**	**0**	**7**

1) The citerion for the regional breakdown is the country of domicile of the borrower, counterparty or issuer.
The country breakdown corresponds to the "List of countries for regional breakdown" ("Länderverzeichnis zur regionalen Gliederung") of the Deutsche Bundesbank.

Table 33: Risk Provisioning by Debtor Groups

All figures in € million

Counterparty types [1]	Utilisation due to non-performing and past due loans	Individual allowances	Portfolio-based allowances	Provisions in lending	Additions to/ reversals of individual allowances and provisions in lending	Direct write-offs	Amounts received in relation to previously written-off receivables	Past-due loans (exclusive impairment requirement)
Central governments and central banks	-	-	———	-	-	-	-	-
Regional governments and local authorities	-	-	———	-	-	-	-	-
Other public sector entities	-	-	———	-	-	-	-	-
Multilateral development banks	-	-	———	-	-	-	-	-
International organisations	-	-	———	-	-	-	-	-
Institutions	-	-	———	-	-	-	-	-
Corporates	344	86	———	-	-7	-	4	7
Thereof: SME	302	82	———	-	-7	-	-	4
Retail exposures	-	-	———	-	-	-	-	
Secured by mortgages on immovable property	-	-	———	-	-	-	-	-
Associated with particular high risk	-	-	———	-	-	-	-	-
Exposures in the form of covered bonds	-	-	———	-	-	-	-	-
Exposures to institutions and corporates with short-term credit assessment	-	-	———	-	-	-	-	-
Exposures in the form of units or shares in collective investment undertakings (CIUs)	-	-	———	-	-	-	-	-
Equity exposures	-	-	———	-	-	-	-	-
Items representing securitisation positions	-	-	———	-	-	-	-	-
Other items	-	-	———	-	-	-	-	-
Gesamt	**344**	**86**	**44**	**0**	**-7**	**0**	**4**	**7**

1) The "counterparty types" correspondent to the exposure classes (CRSA); overdue positions are assigned to their primary exposure class.
Guarantees and warranties (e.g. from governments and other public sector entities) are not considered for the allocation.

Table 34: Risk Provisioning Changes

All figures in € million

Risk provisions	Balance 31.12.2015 [1)]	Allocations	Reversals	Consumption / utilisation	Exchange-rate related and other changes [2)]	Balance 31.12.2016
Individual allowances	117	13	-19	-16	-9	86
Portfolio-based allowances	32	15	-3	-	-	44
Provisions	1	-	-1	-	-	-
Total	**150**	**28**	**-23**	**-16**	**-9**	**130**

1) The balance of individual allowances as of 31.12.2015 was adjusted in accordance with IAS 8.14 et.seq. (see details in the Financial Statements of pbb Group as of 31.12.2016, Note 3 "Consistency")
2) Increase of the present value of impaired receivables due to passage of time (Unwinding).

In financial year 2016, an addition amounting € 5 million of net credit risk provisioning (additions ./. releases) was determined (2015: net release of € 6 million). These risk provisioning items include individual value adjustments, portfolio-based value adjustments and provisions for contingent liabilities and other obligations. For written-off claims, payments of € 4 million were received (2015: € 3 million) which were recognised in the income statement.

As of 31 December 2016 the amount of value adjustments on accounts receivable (individual value adjustments and portfolio-based value adjustments) amounted to € 130 million (31 December 2015: € 149 million).

In 2016, € 6 million individual value adjustments (additions ./. releases) were released (2015: net additions € 16 million). Releases of individual value adjustments of € 9 million (due to the agreement with the Republic of Austria with regard to the liabilities of Heta Asset Resolution AG) were offset by net additions of € 3 million for individual exposures.

Net additions to portfolio-based value adjustments of € 12 million (additions ./. releases) were made in 2016 (2015: net release of € 13 million). The additions were attributable to an internal risk assessment of a southern European region.

As of 31 December 2016, the stock of provisions for contingent liabilities and other obligations was € 0 million (31 December 2015: € 1 million). This item mainly includes provisions for guarantee risks, letters of credit, irrevocable credit commitments and litigation risk associated with the loan business.

Early Warning System

The early warning system of pbb Group has defined criteria respectively threshold values (triggers) for including loans in the watchlist and for being classified as workout loans, e. g. past due payments, failure to meet financial ratios – e. g. loan-to-value (LTV), interest service coverage (ISC). The system constantly monitors whether a trigger has been set off. In the event of any problems being identified, the counterparty is analysed and, where appropriate, promptly transferred to restructuring or workout loans. Watchlist and non-performing loans (restructuring and workout loans) are defined as follows:

Watchlist Loans

Payments past due by more than 60 days or another defined early warning signal is triggered (for instance insolvency of a main tenant in the REF segment).

Restructuring Loans

Payments past due by more than 90 days or another defined early warning signal is triggered (for instance insolvency of a borrower). The focus with restructuring is on active implementation of a restructuring concept – with the objective of either returning the exposure to regular coverage, or realising collateral on the market, without enforcement.

Workout Loans

There are no indications that the loan can be restructured. Enforcement measures have been/will be introduced, respectively specific allowances have been created or are planned.

Non-performing loan processing is also responsible for carrying out an impairment test in line with the relevant accounting regulations.

5.3 General Information on CRSA Items and Selected IRBA Items

pbb Group identifies capital requirements for credit risks based on both the bank-internal rating procedures based Advanced IRB Approach as well as the standardised approach. For details, please refer to Chapter 3.3 “Capital Requirements”. Some clearly defined sub-portfolios are exempt from the application of IRBA and are subject to CRSA instead. These include:

- Credit risk positions associated with German municipalities according to Article 150, Point (d) CRR
- Credit risk positions which are part of a segment which is being phased out according to Article 150, Point (c) CRR in conjunction with Section 14 of the German Solvency Regulation (SolvV) (e. g. small-volume retail loans where customer creditworthiness is assessed using retail scoring)
- Equity exposures held according to Article 495 (1) CRR prior to 1 January 2008
- Receivables from central counterparties (Eurex)
- Other credit risk positions which are not subject to any rating procedure according to the IRB Approach approved by the German financial regulation authorities.

According to Article 444, Point (e) CRR, the following Table shows exposures at default (EAD) subject to the standardised approach (CRSA) before and after credit risk mitigation, sorted by exposure classes and risk weights (credit quality steps).

Table 35a: CRSA Exposures before Credit Risk Mitigation

All figures in € million

Exposure classes CRSA	Exposure value before credit risk mitigation - by risk weighting [1]									
	0%	2%	20%	35%	50%	75%	100%	150%	250%	1250%
Exposures to central governments and central banks	-	-	-	-	-	-	-	-	-	-
Exposures to regional governments and local authorities	159	-	-	-	-	-	-	-	-	-
Exposures to other public sector entities	0.5	-	-	-	-	-	-	-	-	-
Exposures to multilateral development banks	1,002	-	-	-	-	-	-	-	-	-
Exposures to international organisations	-	-	-	-	-	-	-	-	-	-
Exposures to institutions	-	374	-	-	-	-	-	-	-	-
Exposures to corporates	-	-	7	-	-	-	881	-	-	-
Retail exposures	-	-	-	-	-	1	-	-	-	-
Exposures secured by mortgages on immovable property	-	-	-	42	3	-	-	-	-	-
Exposures in default	-	-	-	-	-	-	6	2	-	-
Exposures associated with particularly high risk	-	-	-	-	-	-	-	-	-	-
Exposures in the form of covered bonds	-	-	-	-	-	-	-	-	-	-
Exposures to institutions and corporates with short-term credit assessment	-	-	-	-	-	-	-	-	-	-
Exposures in the form of units or shares in collective investment undertakings (CIUs)	-	-	-	-	-	-	3	-	-	-
Equity exposures	-	-	-	-	-	-	-	-	-	-
Other items	6	-	-	-	-	-	-	-	56	-
Total	**1,166**	**374**	**7**	**42**	**3**	**1**	**891**	**2**	**56**	**0**

1) pbb Group discloses no risk positions (CRSA) in the risk weighting classes 4%, 10%, 70%, 370% or others.

Table 35b: CRSA Exposures after Credit Risk Mitigation

All figures in € million

Exposure classes CRSA	Exposure value after credit risk mitigation - by risk weighting [1]									
	0%	2%	20%	35%	50%	75%	100%	150%	250%	1250%
Exposures to central governments and central banks	187	-	-	-	-	-	-	-	-	-
Exposures to regional governments and local authorities	936	-	-	-	-	-	-	-	-	-
Exposures to other public sector entities	0.5	-	-	-	-	-	-	-	-	-
Exposures to multilateral development banks	1,002	-	-	-	-	-	-	-	-	-
Exposures to international organisations	-	-	-	-	-	-	-	-	-	-
Exposures to institutions	-	374	-	-	0.2	-	-	-	-	-
Exposures to corporates	-	-	7	-	-	-	104	-	-	-
Retail exposures	-	-	-	-	-	1	-	-	-	-
Exposures secured by mortgages on immovable property	-	-	-	42	3	-	-	-	-	-
Exposures in default	-	-	-	-	-	-	5	0.1	-	-
Exposures associated with particularly high risk	-	-	-	-	-	-	-	-	-	-
Exposures in the form of covered bonds	-	-	-	-	-	-	-	-	-	-
Exposures to institutions and corporates with short-term credit assessment	-	-	-	-	-	-	-	-	-	-
Exposures in the form of units or shares in collective investment undertakings (CIUs)	-	-	-	-	-	-	3	-	-	-
Equity exposures	-	-	-	-	-	-	-	-	-	-
Other items	6	-	-	-	-	-	-	-	56	-
Total	**2,132**	**374**	**7**	**42**	**3**	**1**	**111**	**0**	**56**	**0**

1) pbb Group discloses no risk positions (CRSA) in the risk weighting classes 4%, 10%, 70%, 370% or others.

The increase of EAD after credit risk mitigation by a total of € 185 million is mainly due to the offset of suretyships and guarantees (substitution approach). Guarantors are mostly financial institutions and public customers. Substitution effects resulting from suretyships/guarantees mean that the secured portion of an IRBA claim (e. g. of a company) is recognised, according to the standardised approach, with the lower risk weight of the guarantor (e. g. a public body) or that guaranteed CRSA receivables are assigned to the lower risk weight of the guarantor. At pbb Group counterparty default exposures to German municipalities are subject to the standardised approach.

Simple IRBA Risk Weights for Specialised Lending

pbb Group does not hold any loan receivables from IRBA positions which are subject to simple IRBA risk weights for specialised lending exposures according to Article 153 (5) CRR.

Simple IRBA Risk Weights for Shareholdings

pbb Group applies the simple IRBA risk weight according to Article 155 (2) CRR to non-key shareholdings in two companies acquired after 31 December 2007, i.e. one financial company and one other company according to Article 4 CRR in conjunction with section 1 KWG. The total book value of these shareholdings amounts to € 13.4 thousand.

For shareholdings held before 1 January 2008 as set out in Article 495 (1) CRR, pbb makes use of the so-called grandfathering. Until 31 December 2017, these shareholdings are temporarily exempt from the requirements of IRBA and are subject to CRSA; their risk weight amounts to 100 %.

Use of Rating Agencies

Nominated Rating Agencies

For the assessment of the credit rating based on the standardised approach, pbb Group only works with external ratings provided by Standard & Poor's and Moody's. These rating agencies are nominated for all CRSA exposure classes.

Transfer of Credit Ratings

Issue ratings are not transferred to comparable receivables of equal or higher rank.

Assignment of External Credit Ratings

For the assignment of external rating agencies' ratings to Credit Quality Steps of the standardised approach, pbb Group uses the method provided by the European Banking Authority (EBA) according to CRR.

5.4 Special Information on Credit Risks

5.4.1 Derivative Counterparty Credit Risk Positions and Netting Positions

pbb Group uses derivatives mainly to hedge market risks resulting e. g. from interest rate or exchange rate changes. These hedging transactions are reflected in underlying transactions on the assets or the liabilities side. The hedged underlying transactions are mostly receivables, securities and liabilities, e. g. real estate financing, Pfandbriefe, bearer bonds or loan notes. Thus, the hedging of interest and exchange rate risks is intended to avoid risks.

In the derivatives business counterparties are primarily OECD banks and OECD financial institutions. Furthermore, pbb Group provides derivatives for real estate customers and public law entities (e. g. companies and private individuals) for them to hedge market risks related to e. g. commercial real estate financing.

Netting Agreements

The derivatives business is usually based on standardised mutual netting agreements which enable a minimisation of legal risks as well as economic and regulatory credit risks and allow for netting of mutual risks. This means that positive and negative market values of derivative contracts subject to a netting agreement can be offset against one another and future regulatory risk premiums for these products can be reduced. Within the framework of the netting process, the credit risk is reduced to one single net claim due from the contracting party.

These risk mitigating techniques are used for the purpose of regulatory reporting and internal measurement and monitoring of credit commitments only if they are considered to be enforceable in the relevant jurisdiction in the event of a business partner's insolvency. To check enforceability legal opinions are used.

In this context the German Master Agreement for Financial Futures based on German law as well as the ISDA Master Agreement of the International Swaps and Derivatives Association (ISDA) are used.

Since 2015 pbb is a direct clearing member of Eurex, which allows pbb Group to use defined types of contracts through the intermediary of a central counterparty so as to reduce the bilateral default risk.

Collateral Management

With defined business partners pbb Group concludes Collateral Service Agreements (CSA) in addition to netting agreements so as to secure any net receivables/net liabilities which may be due after netting (receipt or provision of collateral). These Collateral Service Agreements help limit the credit risk using a timely assessment and adjustment of customer commitments (limit relief), thereby creating scope for new business transactions within the granted counterparty lines.

Collateral is mostly provided in the form of cash collateral and sometimes as securities via title transfer. Collateral received is subject to a systematic documentation.

The hedging requirements are determined on a daily basis within the framework of mark-to-market valuation and aligned with the counterparties. If threshold amounts have been agreed, collateral will be requested only once the threshold for the contractor concerned has been reached. The same goes for minimum transfer amounts. Only once the agreed minimum transfer amount has been reached or exceeded will a call be made. If a change of the mark-to-market valuation below the threshold value occurs, no call is made so as to limit processing costs. Incoming payments are monitored and the counterparty is sent a reminder when needed.

A Collateral Service Agreement is also in place with the central Eurex counterparty. Collateral is mostly provided in the form of securities using a specific securities portfolio built for this purpose. However cash collateral can be provided as well.

Derivative Counterparty Credit Risk Positions

Within the framework of its over the counter (OTC) business, pbb Group is exposed to credit risks resulting from derivatives.

Potential Replacement Cost

According to Article 439, Point (e) CRR, the following Table shows the extent of pbb Group's commitment by contract types as well as the volume of the use of derivative netting agreements and collateral eligibility. Netting agreements and eligible collateral refer to all contract types (contract comprehensively) within a framework agreement. For this reason, these items are not listed according to the type of contract.

Table 36: Positive Replacement Values by Type of Contract

All figures in € million

Types of contract	Positive replacement values before netting and collateral		Netting possibilities	Eligible collateral	Positive replacement values after netting and collateral
	31.12.2016	31.12.2015			
Interest risk rate	4,567	6,472			
Foreign exchange rate risk	14	88			
Exchange/ index-related risk	-	-			
Credit derivatives	-	-			
Commodity-based risk	-	-			
Others	-	-			
Total	**4,581**	**6,560**	**3,011**	**1,128**	**442**

Derivative positions not only lead to market risks, but also to credit risks if a claim due from a contractor arises in the form of positive market values. From pbb Group's perspective these positive replacement values (gross fair values) are determining when assessing the risk as they correspond to the additional expenses or reduced income which would result from a restoration of an equivalent item following the counterparty default. Therefore from a regulatory perspective positive fair value is understood as replacement cost.

Positive replacement values (before netting and collateral) from derivative transactions dropped as of 31 December 2016 to € 4,581 million (31 December 2015: € 6,560 million), i.e. a reduction of approx. € 2 billion as compared with the previous year.

The decrease is primarily the result of the first-time balance sheet netting of derivatives concluded with Eurex Clearing, insofar as these requirements were met for off-balance sheet balancing. Within the framework of the European Market Infrastructure Regulation (EMIR), there is a clearing obligation for standardised OTC derivatives. For this purpose, Eurex Clearing is the central clearing house used by pbb or the qualified central counterparty (qualified CCP) pursuant to Article 4, point 88 CRR. pbb has been using netting as a basis for the balance sheet since May 2016. In the financial year, newly concluded derivative contracts were also settled via Eurex Clearing and, in addition, derivatives from the portfolio were converted to Eurex Clearing.

The amount of € 4.6 billion corresponds to the expenses which pbb Group would incur for the replacement of originally concluded contracts by transactions of equal commercial significance. Thus, from pbb Group's perspective this amount indicates the maximum potential credit risk. From a regulatory point of view, these expenses are seen as replacement cost. The major portion is for interest rate swaps.

By concluding mutual netting agreements allowing for netting out positive and negative market values within a framework contract (contract comprehensively), the credit risk is reduced to one single net claim due from the contracting party. pbb Group used derivative netting with an amount of € 3.0 billion (31 December 2015: € 4.8 billion).

For hedging the net receivables remaining after netting, pbb Group has signed Collateral Service Agreements with its business partners. Most of the eligible collateral received of € 1.1 billion is in the form of cash collateral. By hedging, the credit risk and the net default risk respectively (positive replacement values after netting and collateral) is reduced to € 443 million (31 December 2015: € 388 million).

Counterparty Credit Risk

The counterparty credit risk from derivative transactions according to Article 439, Point (f) CRR is shown in the following Table. The calculation of regulatory receivables (risk-weighted assets) for the credit risk resulting from derivative positions is based on so-called credit equivalent amounts and not on the replacement values as described above. Credit equivalent amounts correspond to exposures at default (EAD) of the balance sheet credit risk positions. For determining the credit equivalent amounts, pbb Group uses the mark-to-market method according to Article 274 CRR.

Table 37: Counterparty Credit Risk

All figures in € million

	Maturity method	Market value method	Standard method	Internal model
Conterparty credit risk exposure	-	**899**	-	-

The counterparty credit risk determined using the mark-to-market method fell by € 55 million to € 899 million at the end of 2016 (31 December 2015: € 954 million Euro). Also in this context, the decline is in particular due to the first-time balance sheet netting of derivatives concluded with Eurex Clearing.

The credit equivalent amounts are determined based on the current potential replacement cost (positive market value of derivative contracts) and an expected future increase in current potential replacement cost, the potential future replacement cost (regulatory add-on).

Credit Derivatives

As in the previous year, pbb Group did no hedging transactions using credit derivatives (collateral-taker or collateral provider) in 2016. Furthermore, pbb Group is not active in prime brokerage. Thus the Tables according to Article 439, Points (g) and (h) CRR do not apply.

Ratings-based Collateral Service Agreements

With some counterparties pbb Group has concluded ratings-based Collateral Service Agreements (CSA) which provide for an adjustment of the threshold amount or a reduction of the minimum transfer amount in the event of a rating downgrade. The scope of the adjustment has been explicitly agreed with the contracting party within the framework of the collateral agreement.

In the event of a threshold amount adjustment, the related cash flow would become immediately due as the bank would have to provide a higher collateral contribution in this case. If the minimum transfer amount was revised, cash flows would occur earlier but no additional payment would become due. This is related to the fact that the minimum transfer amount, unlike the threshold, is no additional collateral but just defines the amount from which payments must be made. If the minimum transfer amount is reduced, payments must be made from a lower threshold onwards. This does not affect the collateral amount itself but only the amount from which changes in value must be compensated in the CSA portfolio. For smaller minimum transfer amounts changes in value are compensated earlier.

Table 38: Threshold Amounts and Minimum Transfer Amounts in the Derivatives Business

All figures in € million

	Threshold Amounts	Minimum Transfer Amounts
Deutsche Pfandbriefbank AG	0	150
Total	**0**	**150**

The numbers in the Table above show the threshold amounts and minimum transfer amounts agreed within the framework of the Collateral Service Agreements at current ratings. Most Collateral Service Agreements do not provide for threshold amounts (any longer) but only for minimum transfer amounts. In some few cases these amounts depend on the rating. As can be seen, the downgrading of a rating does not have any material impact on pbb Group's liquidity.

This is due to the fact that most long-term ratings for pbb's Collateral Service Agreements (CSA) are already in the lowest category. The following Table shows senior unsecured ratings commissioned by pbb as at the reporting date.

Table 39: Senior-Unsecured Ratings

		Standard & Poor's	DBRS
Deutsche Pfandbriefbank AG	Long-term issuer rating / outlook	BBB / Credit Watch Positive	BBB / Stable
	Short-term issuer rating / outlook	A-2 / -	R-2 (high) / Stable
	Long-term senior unsecured debt rating / outlook	BBB / Credit Watch Developing	BBB / Stable

Internal Capital Allocation and Credit Limits

Capital allocation and the limitation of default risks for counterparties with derivative positions is part of pbb Group's general allocation and limitation process applicable to credit risks. Limits are primarily based on the counterparty's credit rating for which the rating methods used play an important role. For details of capital allocation to risk categories, please refer to the chapter addressing ICAAP and the monitoring of the risk-bearing capacity (Chapter 4.2 "Economic Capital and Risk-Bearing Capacity"). In all other respects, the methods of regulatory large credit management apply. Ongoing monitoring of counterparty limit usage is ensured by Risk Management & Control on a daily basis.

Correlations of Market and Counterparty Risks

The requirements of Article 439 Point (c) CRR concerning a discussion of policies with respect to wrong-way risk exposures are not relevant for pbb Group. For the calculation of receivable values pbb Group uses the mark-to-market method according to Article 274 CRR an.

Accounting and Valuation Methods for Derivatives

Derivatives are measured at fair value. Changes in fair value are recognised in profit or loss if the derivatives are not part of cash flow hedge accounting. The measurement gains and losses from stand-alone derivatives are recognised in net trading income and from hedging derivatives in net income from hedging relationships. In the statement of financial position, stand-alone derivatives are disclosed as trading assets and trading liabilities. Hedging derivatives are disclosed as other assets and other liabilities.

Outside the held-for-trading (HfT) and Designated at Fair Value Trough Profit or Loss (dFVTPL) category, embedded derivative financial instruments within a structured product and which are required to be separated are separated from the host contract and recognised as stand-alone derivative financial instruments. Thereafter, the host contract is measured in accordance with its classification. The change in value arising from the separated derivatives that are measured at fair value is recognised in profit or loss.

To account for counterparty credit risks applying to OTC derivatives, pbb Group determines credit value adjustments (CVA), i.e. valuation adjustments of OTC derivatives within the framework of accounting. CVAs indicate the loss which would occur in the event of a counterparty default. CVA losses are recognised in profit or loss. pbb Group uses the standardised method according to Article 384 CRR to calculate the own funds requirement related to the credit value adjustment (CVA risk).

5.4.2 Investments in the Banking Book

Purpose

For strategic reasons, pbb Group makes targeted investments aimed at achieving the company's goals. Thus, pbb Group's shareholdings are an essential element of its business model as described in Chapter 1.1 "Organisational and Legal Structure". The companies under pbb are legally and operationally separate but pursue objectives which are co-ordinated at group level.

Accounting and Valuation Methods

pbb's shareholdings are described in the Notes to pbb Group's Annual Report 2016 (Note 86 "Holdings of pbb"). In this note the subsidiaries are categorised on the basis of their consolidation within the framework of the IFRS consolidated financial statement. Furthermore, other shareholdings are shown as well. As compared with the previous year, the assumptions and valuation techniques used have not been subject to major changes.

Consolidated Companies

All fully consolidated companies have the calender year as the financial year. The separate financial statements of the consolidated domestic and foreign companies are incorporated in the consolidated financial statements of pbb Group using uniform accounting and measurement principles.

At the acquisition date the costs of a business combination are allocated by recognising the acquiree's identifiable assets, liabilities and contingent liabilities that satisfy the recognition criteria according to IFRS 3.10 at their fair values at that date. Any difference between the cost of the business combination and the acquirer's interest in the net fair value of the identifiable assets, liabilities and contingent liabilities so recognised are accounted as goodwill or as an excess of acquirer's interest in the net fair value of acquiree's identifiable assets, liabilities and contingent liabilities in accordance with IFRS 3.32–36. If the interest in net fair value of the identifiable assets, liabilities and contingent liabilities exceeds the costs of business combination the acquirer shall reassess the identifiable assets, liabilities and contingent liabilities and the measurement of the cost of the combination, and recognise immediately in profit or loss any excess remaining after reassessment.

Business relations within the group of consolidated companies are netted with respect to each other. Intercompany results attributable to internal transactions are eliminated.

Non-Consolidated Companies

The effects of the contractual relations between the Group companies and the subsidiaries which are not consolidated are set out in the consolidated financial statements. pbb Group was unable to reliably determine a fair value for one interests in subsidiaries (31 December 2015: 2) that are not included as they are of minor importance to the Group. Interests in these companies in the legal form of a limited company (GmbH) are not traded in an active market and are therefore measured at cost and accounted for in the AfS financial investments.

Net gains and net losses generated by the disposal of AfS financial instruments as well as by changes in value as a result of impairment or reversals to be recognised in profit or loss are recognised in net income from financial investments.

The total amount of the book values of the company's interests in subsidiaries individually regarded as minor amounted to € 0 million (31 December 2015: € 0 million).

Associated Companies

As of 31 December 2016 and as of previous year, there are no material interests in associated companies or joint ventures.

Shares in these companies in the legal form of a business partnership are valued at acquisition cost and are reported in the AfS financial assets.

The total amount of the book values of the company's interests in associated companies individually regarded as minor amounted to € 0 million (31 December 2015: € 0 million).

Values of Shareholdings

In the following Table, the shareholdings of pbb Group are shown based on their accounting classification according to Article 447, Points (b) and (c) CRR. The Table only shows shareholdings which are part of the regulatory consolidation scope. Items which are subject to the deduction method or are subject to regulatory risk-weighting are not shown.

Table 40: Values of Shareholdings based on their Accounting Classification

All figures in € million

Equity instruments by groups	Carrying amount	Comparison Fair value	Market value (stock-market price)
Subsidiaries	**55**	**55**	**-**
Consolidated subsidiaries under accounting law			
Thereof exchange-trade equity instruments	-	-	-
Thereof unlisted, but part of a sufficiently diversified portfolio	-	-	-
Thereof other investments	55	55	-
Non-consolidated subsidiaries under accounting law			
Thereof exchange-trade equity instruments	-	-	-
Thereof unlisted, but part of a sufficiently diversified portfolio	-	-	-
Thereof other investments	-	-	-
Associated companies	**-**	**-**	**-**
Associated companies of minor significance			
Thereof exchange-trade equity instruments	-	-	-
Thereof unlisted, but part of a sufficiently diversified portfolio	-	-	-
Thereof other investments	-	-	-

In addition to pbb as parent company, the regulatory consolidation scope of pbb Group comprises 8 companies which are all consolidated according to the Commercial Code (IFRS). Accordingly, no fair value must be determined for these 8 companies. The fair value is equal to the book value.

Altogether the book values of the companies within the regulatory consolidation scope amount to € 55 million (31 December 2015: € 54 million). None of the companies is stock listed.

Realised and Unrealised Gains and Losses from Shareholdings

Realised and unrealised gains and losses from shareholdings according to Article 447, Points (d) and (e) CRR are disclosed based on the provisions of IFRS 12.

Realises Gains and Losses

For one shareholdings in subsidiaries which are not considered due to their minor importance to pbb Group (31 December 2015: two), pbb Group was unable to reliably determine a fair value. The shareholdings in these companies in the legal form of a limited copmany (GmbH) are not traded in an active market and are therefore measured at cost and shown under AfS financial investments. The total book value of shareholdings in subsidiaries which are insignificant when taken individually was € 0 million (31 December 2015: € 0 million). In financial year 2016, an investment with a book value of less than € 0.5 million was derecocnised, the fair value of which could not be reliably determined (2015: EUR 0 million).

pbb Group held three shareholdings in associated companies (31 December 2015: 3). In light of their subordinate significance, none of pbb Group's shares in associated companies must be recognised in accordance with the at-equity method. The shareholdings in these companies, which have the legal form of partnerships, are valued at acquisition cost and shown under AfS financial investments. As in the previous year, the total book value of shareholdings in associated companies which are insignificant when taken individually was € 0 million.

Unrealised Gains and Losses from Revaluation

As in the previous year, pbb Group did not hold any shareholdings in companies as of 31 December 2016 for which the fair value could be reliably determined but which were not fully consolidated or not recognised in accordance with the at equity method. Thus pbb Group did not see any unrealised gains or losses from revaluations in 2016 resulting from changes in the fair value based on a subsequent fair value measurement (31 December 2015: € 0 million).

Effects from Derecognition

In fiscal year 2016, the company Hayabusa Godo Kaisha i.L., Tokyo, a special purpose company in connection with a salvage acquisition was liquidated. After the liquidation of the company, this was no longer taken into account both in the regulatory and the commercial consolidation scope. Assets and liabilities remaining in the Company were liquidated by Hypo Real Estate Capital Japan Corp. I.L., Tokyo, whose liquidation initiated on 31 August 2016 and which is expected to be completed in 2017. There were no effects on the consolidated income statement and the consolidated balance sheet.

5.4.3 Securitisations

Objectives, Functions and Activities of the Securitisation Process

In reporting year 2016, as in the previous year, pbb Group did not place own securitisations and did not invest in securitisation positions of third-party receivables. From the securitisation business done in the past, pbb Group still has a synthetic securitisation transaction in the regulatory role as originator. This is the Group's only securitisation transaction. pbb Group does not occure on the market in the regulatory role as an investor or sponsor. Furthermore, pbb and its affiliates (pbb Group) do not have a trading book.

The following Table provides an overall view of the existing activities in the various functions according to Article 449 CRR, which are described in more detail below.

Table 41: Overall Securitisation Activities

All figures in € million

	Verbriefungsaktivitäten							
	Originator				Investor		Sponsor	
	with significant credit risk transfer 1)		without significant credit risk transfer 2)		securitisation positions purchased 3)			
	31.12.2016	31.12.2015	31.12.2016	31.12.2015	31.12.2016	31.12.2015	31.12.2016	31.12.2015
Banking book	189	306	-	-	-	-	-	-
Trading book	-	-	-	-	-	-	-	-
Total	**189**	**306**	**0**	**0**	**0**	**0**	**0**	**0**

1) Sum total of securitisation positions created with recognition of capital considerations according to Basel III due to essential and significant risk transfers according to Article 244 section 2 CRR.
2) Exposure at Default (CRSA-/ IRBA-exposure amount) of the underlying receivables for securitisation positions without recognition of capital considerations according to Basel III due to essential and significant risk transfers according to Article 244 section 2 CRR.
3) Exposure at Default (CRSA-/ IRBA-exposure amount) of purchased securitisation positions.

Originator

As in the previous year, pbb Group held one own securitisation transaction dated back to 2007 as at the reporting date, i.e. a synthetic securitisation transaction called "Estate UK-3". In February 2007, a predecessor institution of pbb - Hypo Real Estate Bank International AG, which merged into Deutsche Pfandbriefbank AG (pbb), securitised a credit portfolio in Great Britain in the context of the synthetic securitisation transaction Estate UK-3 and thus secured credit risks. The UK credit portfolio is hedged by means of a financial guarantee from a major credit institution for the Super Senior tranche and by issued credit linked notes (CLN) for the remaining tranches. The portfolio consisted of 13 loans, which financed 110 commercial properties. The transaction was concluded with a maturity of 15 years (maturity 2022), the originally securitised total volume amounted to € 813 million. The secured party of the transaction is pbb.

The primary motivation behind the bank's own securitisation programmes was to achieve a risk relief (reduction of credit risks and capital relief) and to manage the credit portfolio by limiting or removing risk concentrations. In this sense, pbb has securitised its own subportfolios in its role as originator. This was the complete or partial transfer of the credit risks of selected, predefined credit portfolios to the capital market.

Generally securitisations are divided into securitisation transactions with claim transfer (so-called traditional or true sale securitisations) and securitisation transactions without claim transfer (so-called synthetic securitisations). For synthetic securitisations, the transfer of risk is ensured by collaterals in the form of guarantees or credit derivatives and for traditional (true sale) securitisations by selling balance sheet assets.

The two following Tables according to Article 449, Points n (i) and p CCR show own receivables securitised by pbb Group in its role as originator for which risk-weighted securitisation positions are determined according to Articles 245 to 266 CRR.

Table 42: Total Amount of Securitised Receivables

All figures in € million

Underlying portfolio	Originator				Sponsor	
	Banking book		Trading book		Banking book	Trading book
	True sale securitisations	Synthetic [1] securitisations	True sale securitisations	Synthetic [1] securitisations		
Real Estate loans	-	189	-	-	-	-
Thereof commercial real estate loans	-	189	-	-	-	-
Thereof residential real estate loans	-	-	-	-	-	-
Thereof commercial and residential real estate loans	-	-	-	-	-	-
Public sector investment finance	-	-	-	-	-	-
Resuritisation	-	-	-	-	-	-
Total	**0**	**189**	**0**	**0**	**0**	**0**

1) Total amount of generated securitisation positions.

The total amount of securitisation positions as of 31 December 2016 amounted to € 189 million (31 December 2015: € 306 million), distributed to 6 classes with sequential loss allocation. In addition to scheduled repayments, the decrease is influenced by changes in the exchange rate between the issue currency, the British pound (GBP) and the Euro.

The securitisation transactions usually provided for retaining a small portion of risks in the form of a junior tranche (first loss piece) of the collateral provider. The synthetic Estate UK-3 securitisation transaction contains junior tranches of € 17 million (31 December 2015: € 20 million). pbb Group does not hold any of the issued credit linked notes. All credit linked notes (including junior tranches) were sold to investors.

Based on the previous Table "Total Amount of Securitised Receivables", the following Table shows non-performing and defaulting receivables of loans securitised by pbb Group as originator as well as the related actual losses which incurred in financial year 2016.

Table 43: Non-performing/Defaulting Receivables and Losses from Securitised Receivables

All figures in € million

Underlying portfolio	Securitised receivables as Originator			
	Banking book		Trading book	
	Non-performing / past due	Losses	Non-performing / past due	Losses
Real Estate loans	134	-	-	-
Thereof commercial real estate loans	134	-	-	-
Thereof residential real estate loans	-	-	-	-
Thereof commercial and residential real estate loans	-	-	-	-
Public sector investment finance	-	-	-	-
Resuritisation	-	-	-	-
Total	**134**	**0**	**0**	**0**

The classification "non-performing/defaulting" applies to underlying past due receivables where the debtor failed to meet their contractual payment of interest or principal in good time or where another default event as defined by CRR occurred or an individual value adjustment was recognised as at the reporting date. Other than non-performing and defaulting receivables, "losses" show the use of individual value adjustments for underlying receivables, i.e. write-downs on capital, interest or cost recognised in the financial year under consideration.

The largest individual loan of the UK credit portfolio, a property loan with an Exposure at Default (EAD) of € 134 million underlying the securitisation transaction Estate UK-3, is a default or rather a default event. The underlying collaterals (commercial real estate properties) were utilised in 2016. The realised sales proceeds was significantly lower than the original value of the collateral. The fail-related loss is approximately GBP 113 million (around € 135 million as of 31 December 2016). At the end of November 2016, pbb announced to the auditing company Deloitte, the trustee of Estate UK-3, that the loss should be allocated to investors (CLNs). Then, Deloitte has informed pbb that there are doubts in their view, if the intention of the pbb loss allocation is allowed. According to the terms of Estate UK-3, Deloitte will appoint an expert to decide on the admissibility of the loss assignment. Should the loss allocation be wholly or partly inadmissible, the loss would have to be borne by pbb. Howevver, pbb considers that the conditions for the full allocation of loss to the investors are in place.

pbb Group did not provide support beyond contractual obligations according to Article 248 (1) CRR.

Securitisation positions from Revolving Credit Risk Positions

pbb Group was not involved in securitisation positions featuring a securitised portfolio of revolving credit risk positions (early amortisation approach) according to Article 265 CRR. Thereofe, a disclosure according to Article 449, Point n (iv) CRR omitted.

Securitisation Transactions without Effective Risk Transfer

As in the previous year, pbb Group did not hold any own securitisation transactions without effective risk transfer according to Article 243, Point (f) CRR as at year end 2016.

SSPEs (Securitisation Special-Purpose Entities)

As in the previous year, pbb Group did not use any SSPEs as of 31 December 2016 as defined in Article 449, Point (i) CRR which invested in securitisation positions of securitisation transactions for which pbb Group is considered originator. Furthermore pbb Group does not work with SSPEs serving as sponsors to securitise third-party positions.

Risk-weighted Securitisation Position Values and Capital Requirements

As in the previous year, the risk-weighted receivables and capital requirements for retained or acquired securitisation positions amounted to € 0 as of 31 December 2016. With the synthetic securitisation transaction, pbb Group did not achieve any relief from the risk-weighted assets according to CRR (RWA of the real estate loans less RWA of the securitisation positions). The expected loss reduction amount to € 161 million (31 December 2015: EUR 168 million).

Risk Management for Securitisation Positions

Credit and Market Risk

The ongoing monitoring of investments in securitisations as defined by Article 449, Point (f) CRR, i.e. changes in the credit and market risk of securitisation and re-securitisation positions is not relevant for pbb Group at the reporting date, as was the case in previous year.

Liquidity Risk

The liquidity risk in connection with securitisations comprises both investor activities and originator activities of so-called Special-Purpose Vehicles (SPVs). As of 31 December 2016, as well as in the year beore, pbb Group was not subject to such a liquidity risk. pbb Group's business strategy does not allow for new investments in SSPVs being made so that no liquidity risks may arise from these types of transactions. There of, a disclosure according to Article 449, Point (b) CRR omitted.

Accounting and Valuation Policies Applicable to Securitisations (according to IFRS)

Originator

pbb Group generally divides securitisations into securitisation transactions with claim transfer (so-called traditional or true sale securitisations) and securitisation transactions without claim transfer (so-called synthetic securitisations).

For traditional (true sale) securitisations the risk transfer and the capital relief are achieved by selling balance sheet assets ("true sale"). Generally the assets are derecognised according to the provisions of IAS 39 once essentially all opportunities and risks have been transferred to a third party. Any differences between the book value and the sales price, e. g. gains or losses resulting from a disposal are recognised in the income statement.

In the event of synthetic securitisations however IFRS specifies that the securitised portfolio is not derecognised. The transferred assets must not be derecognised as the criteria for a disposal according to IAS 39 are not met. The underlying receivables are continued to be recognised in the relevant IFRS category and thus stated in the group's balance sheet. Accounting and valuation of these receivables are still based on the provisions of the applicable IFRS category.

Investor

As of 31 December 2016 and as in the year before, pbb Group did not hold any investor securitisation positions in its portfolio.

Securitisation Transactions using Special-Purpose Entities

As of 31 December 2016 and as in the year before, pbb Group did not use any Securitisation Special-Purpose Entities.

Derivatives in Connection with Securitisations

pbb Group analyses securitisation transactions in order to identify any embedded derivatives which have to be separated. That is the case e. g. where the credit risk of receivables underlying a securitisation is transferred to a special purpose vehicle using a derivative and this special purpose vehicle does not become the owner of the assets.

According to IAS 39.11 embedded derivatives must be separated from the underlying contract and valued separately if the economic features and risks of the embedded derivative, along with other criteria, are not closely linked to the economic features and risks of the underlying contract. In order to verify whether a separation obligation exists, the economic risks of both the underlying transaction and the embedded derivative are assessed.

Embedded derivatives of a securitisation product which must be separated are recognised and evaluated in accordance with IAS 39 as individual derivative financial instruments separately from the underlying contract. The underlying contract is then recognised depending on the applicable category. The change in value of separated derivatives measured at the fair value is recognised in the income statement.

Securitisation Activities in the Reporting Period

As in the previous year, pbb Group did not make any new securitisation transactions with risk transfer in 2016 as defined in Article 244 (2) CRR; therefore a disclosure according to Article 449, Point n(vi) CRR omitted.

Assets for Securitisation

According to pbb Group’s business strategy, new securitisations are no company objective. Accordingly, pbb Group did not plan any new securitisations of own receivables for financial year 2017. Therefore, a disclosure according to Article 449, Points n (iii) and j (v) CRR omitted.

5.5 General Information about IRBA Positions

For the Advanced IRB Approach pbb Group has reveived approval for the following PD rating and LGD methods:

- PD rating methods used for commercial real estate financing:
  - SPV investors
  - SPV developers
  - Developer drawing up its balance sheet
  - Investor drawing up its balance sheet
  - Investor not drawing up its balance sheet
  - Housing associations
  - Partnerships under civil law ("Gesellschaften bürgerlichen Rechts")
- Other PD rating methods:
  - States
  - Local Authorities
  - Large Corporate customers
  - Banks
  - Public Sector Entities
  - Private customers
  - Small and medium sized corporate customers
- LGD methods:
  - LGD calculator for German and international real estate financing operations
  - Bank LGD model
  - Corporate LGD model
  - State LGD model
  - Local authorities LGD model
  - LGD model Past Default for non-real estate financings.

Otherwise, the standardised approach only covers pbb Group's largely intangible segments.

5.5.1 Internal Rating Systems

Internal rating systems must meet the minimum requirements on the use of the IRB Approach according to Articles 143 and 144 CRR. In addition to methodological and procedural/organisational requirements, the rating systems must have proven their suitability for risk classification concerning both portfolio and new business. According to Article 142 CRR, the term rating systems refers to all of the methods, processes, controls and monitoring procedures as well as data collection and IT systems.

PD Rating Methods and LGD Models

pbb Group's PD rating systems are methods where defined quantitative and qualitative risk factor levels of a debtor or guarantor are assigned to scores based on a mathematical-statistical historical data analysis as well as on forward-looking expert opinions. By weighting the risk factors, the scores are combined to form a total score which is then translated into a rating class.

pbb Group's LGD models result in estimated loss percentages of the exposure at default (EAD). The LGD calculator for international commercial real estate financing operations is based on a Monte Carlo simulation approach. For LGD estimates of real estate financing operations in Germany, pbb Group uses statistic recovery rates and handling times which are drawn from a German pool project of the Association of German Pfandbrief banks.

The classification of a debtor of an IRBA credit risk position according to the PD rating systems and LGD models is governed by pbb Group's scope of application as defined in the rating process.

pbb Group uses a uniform master rating scale of 27 grades which is the same across rating methods and exposure classes meaning that the rating is consistent for all credit risk positions. The 27 grades of the master rating scale are assigned unambiguous probabilities of default so that the internal rating classifications can be related to third-party credit ratings.

Other Application Fields of Internal Estimates

The internal estimations of Probability of Default (PD) and Loss Given Default (LGD) are important parameters for risk management and credit decisions. Within the framework of preliminary calculations these risk parameters help determine risk and capital cost which form the basis for risk adjusted pricing.

Furthermore, ratings and loss ratios play an important role in loan approval and processing where each credit risk position must be classified based on its risk content. The PD and LGD risk parameters allow the derivation of expected loss classes which form the basis of the allocation of competencies.

Furthermore, the results of internal rating systems are used to prepare the economic risk-bearing capacity calculation.

Recognition of Credit Risk Mitigation Techniques

Within the framework of credit risk mitigation, pbb Group recognises the following collateral:

- real estate
- financial securities
- suretyships and guarantees.

Mostly mortgages of commercial real estate financing operations are used as physical collateral to estimate the risk mitigating loss ratios for the LGD models. Within the framework of the EAD, cash collateral which is frequently used for derivative credit risk positions based on Collateral Service Agreements with counterparties is considered as credit risk mitigating factor. In addition, suretyships and guarantees are taken into account as a risk-reducing factor.

The value of collateral is verified on an event-driven basis and within the framework of the regular annual credit rating assessment of borrowers by the loan officers; for real estate, third-party or internal opinions are considered as well. Any additional information on recognisable collateral including valuation and administration can be found in Chapter 5.5.2 "Credit Risk Mitigation Techniques".

Implemented Rating System Control Mechanisms

For the purpose of checking the completeness and validating the input data for the rating systems, technical control mechanisms have been implemented including e. g. a release based on a dual control principle.

All PD and LGD rating methods are subject to an annual validation by Risk Management & Control. Within this framework, the selectivity, stability and calibration of methods, the data quality as well as the model design are checked based on statistical analyses and user feedback. For the German real estate financing LGD model, pbb Group is part of the pool validation by the Association of German Pfandbrief Banks. Where possible the PD values are measured using long-term default rates of the Group's portfolio. For portfolio segments featuring historically low default rates, e. g. states, local authorities and banks, the PD values are derived from S&P's long-term observation of defaults.

Risk Management & Control is independent of other business areas. The credit risk monitoring unit which is located in this division is responsible for the development, implementation, maintenance, monitoring and optimisation of all PD and LGD methods across the group. The results of these validation and monitoring activities are integrated into the internal audit function's activities.

The internal audit function acts as a process-independent organisation and is responsible for regularly checking whether the internal rating systems are appropriate and meet the minimum requirements for rating systems.

IRBA Exposure Classes

pbb Group attributes debtors of IRBA credit risk positions to PD rating systems and LGD models based on the scope of application as defined in the rating process. All rating systems are attributed to a regulatory asset class without any overlaps.

Exposures to Central Governments and Central Banks, Institutions, Corporates

The rating systems used for the central governments and central banks, institutions and corporates exposure classes are made up of statistical cores, complemented by expert model components so as to incorporate qualitative and other information into the risk classification. The customer base covered by these rating systems is subject to an initial rating followed by at least one follow-up rating per year. Where material information influencing the credit rating is found, a re-rating is carried out during the year.

The LGD calculator for international commercial real estate financing operations attributed to the corporates exposure class is based on a Monte Carlo simulation approach.

For the purpose of data processing, all relevant input factors and the rating results are stored in order to ensure a complete rating history for every debtor and every guarantor as well as every transaction which is prone to credit risks.

Debtors are assigned to rating classes based on the default probability on a master rating scale of 27 grades.

Retail Exposures

The Retail exposure class according to IRBA does not apply to pbb Group.

Equity Exposures

According to Article 495 (1) CRR, equity exposures which were held by pbb Group prior to 1 January 2008 are exempt from the IRBA treatment and are currently assessd according to the rules of CRSA.

Holdings acquired after 31 December 2007 – non-significant holdings of pbb in two companies, one financial company and one other company in accordance with Article 4 CRR in conjunction with Section 1 KWG – are treated as IRBA equity exposures and taken into account using the simple IRBA risk weight as set out in Article 155 (2) CRR.

IRBA Exposures

The exposure at default (EAD) in line with CRR shows the outstanding receivables in the event of a default. For most products this is the IFRS accounting value (including accrued interest). In the event of a committed credit line, this value is multiplied by a product-specific credit conversion factor (CCF) and forms part of the EAD. The credit conversion factor (CCF) expresses the expected utilisation in per cent of an existing undrawn credit line within one year until the event of a default.

The EAD is determined for all receivables, whether or not a default has occurred. Basically the EAD is composed of the following: capital (capital EAD), interest (interest EAD), cost (cost EAD) and liabilities (liabilities EAD).

Specific features applicable to the EAD for derivatives are described in Chapter 5.4.1 “Derivative Counterparty Credit Risk Positions and Netting Positions”. The EAD (credit equivalent amount) results from the current market value and the regulatory add-on which is a cushion for future potential increases of the market value.

The following Tables according to Article 452, Points d and e (i, ii) CRR show the IRBA exposures at default by PD and exposure classes as well as the average PDs, LGDs and risk weights in percent weighted by the exposures.

As required by Article 452, Point j (i) CRR, the information is shown altogether and additionally by geographical location of the credit exposures (booking location of business), i.e. for credit exposures in Germany where pbb is authorised and in states where pbb Group is active through branches or subsidiaries. pbb runs subsidiaries in Japan and India (both companies were active as so-called "commercial money lenders", without being a credit institution; both companies are actually in liquidation) as well as branches in London, Madrid, Paris, and Stockholm. IRBA credit risk positions totalling € 57,933 million are distributed as follows:

- Germany € 46,261 million or 80 %
- France € 5,295 million or 9 %
- Greatb Britain € 4,302 million or 7 %
- Sweden € 1,365 million or 2 %
- Spain € 709 million or 1 %

The Group’s subsidiary in Japan (Hypo Real Estate Capital Japan Corp. i.L., Tokyo) still holds credit risk positions of around € 1 million, the risk positions of the subsidiary in India (Hypo Real Estate Capital India Corp. Private Ltd. i.L., Mumbai) amount to € 0 million. Due to lack of significance for theses two geographical locations the Tables according to Article 452, Point j (i) CRR are not shown for these two states.

Table 44a: IRBA Credit Risk Positions – Total

Exposure classes IRBA	PD ≤0,5%				PD >0,5% ≤5%			
	EAD in € million	∅ LGD	∅ PD	∅ RW	EAD in € million	∅ LGD	∅ PD	∅ RW
Central governments and central banks	23,579	25%	0.03%	10%	95	43%	1.00%	120%
Institutions	6,166	32%	0.16%	30%	729	11%	1.08%	39%
Corporates	13,064	10%	0.31%	14%	13,586	11%	1.57%	28%
Thereof: SME	7,576	9%	0.31%	11%	9,392	11%	1.56%	24%
Thereof: Spesialised lending exposures	-	-	-	-	-	-	-	-
Thereof: Other	5,488	12%	0.31%	19%	4,194	13%	1.60%	36%
Retail exposures	-	-	-	-	-	-	-	-
Equity exposures	-	-	-	-	-	-	-	-
Total	**42,809**	**22%**	**0.13%**	**14%**	**14,409**	**11%**	**1.54%**	**29%**

Exposure classes IRBA	PD >5% <100%				Total (excl. Default)			
	EAD in € million	∅ LGD	∅ PD	∅ RW	EAD in € million	∅ LGD	∅ PD	∅ RW
Central governments and central banks	-	-	-	-	23,673	25%	0.04%	10%
Institutions	237	59%	21.51%	359%	7,132	31%	0.96%	42%
Corporates	227	25%	9.17%	97%	26,877	11%	1.02%	22%
Thereof: SME	131	30%	11.19%	117%	17,099	10%	1.08%	19%
Thereof: Spesialised lending exposures	-	-	-	-	-	-	-	-
Thereof: Other	96	19%	6.42%	69%	9,778	13%	0.92%	27%
Retail exposures	-	-	-	-	-	-	-	-
Equity exposures	-	-	-	-	-	-	-	-
Total	**464**	**42%**	**15.48%**	**230%**	**57,682**	**19%**	**0.61%**	**20%**

Exposure classes IRBA	Default PD = 100%			
	EAD in € million	∅ LGD	∅ PD	∅ RW
Central governments and central banks	-	-	-	-
Institutions	-	-	-	-
Corporates	250	57%	100%	0%
Thereof: SME	212	58%	100%	0%
Thereof: Spesialised lending exposures	-	-	-	-
Thereof: Other	38	56%	100%	0%
Retail exposures	-	-	-	-
Equity exposures	-	-	-	-
Total	**250**	**57%**	**100%**	**0%**

Table 44b: IRBA Credit Risk Positions – Germany

Exposure classes IRBA	PD ≤0,5%				PD >0,5% ≤5%			
	EAD in € million	∅ LGD	∅ PD	∅ RW	EAD in € million	∅ LGD	∅ PD	∅ RW
Central governments and central banks	21,446	25%	0.03%	10%	94	43%	1.00%	121%
Institutions	4,492	28%	0.21%	31%	729	11%	1.08%	39%
Corporates	10,090	10%	0.31%	15%	8,828	13%	1.59%	33%
Thereof: SME	5,252	9%	0.31%	11%	5,786	12%	1.57%	29%
Thereof: Spesialised lending exposures	-	-	-	-	-	-	-	-
Thereof: Other	4,838	12%	0.31%	20%	3,043	14%	1.64%	42%
Retail exposures	-	-	-	-	-	-	-	-
Equity exposures	-	-	-	-	-	-	-	-
Total	**36,028**	**21%**	**0.13%**	**14%**	**9,651**	**13%**	**1.55%**	**35%**

Exposure classes IRBA	PD >5% <100%				Total (excl. Default)			
	EAD in € million	∅ LGD	∅ PD	∅ RW	EAD in € million	∅ LGD	∅ PD	∅ RW
Central governments and central banks	-	-	-	-	21,540	25%	0.04%	11%
Institutions	237	59%	21.51%	359%	5,458	27%	1.25%	47%
Corporates	95	30%	11.03%	125%	19,013	12%	0.96%	24%
Thereof: SME	70	32%	12.22%	138%	11,108	11%	1.04%	21%
Thereof: Spesialised lending exposures	-	-	-	-	-	-	-	-
Thereof: Other	25	24%	7.64%	91%	7,905	13%	0.84%	29%
Retail exposures	-	-	-	-	-	-	-	-
Equity exposures	-	-	-	-	-	-	-	-
Total	**332**	**50%**	**18.52%**	**292%**	**46,011**	**20%**	**0.56%**	**20%**

Exposure classes IRBA	Default PD = 100%			
	EAD in € million	∅ LGD	∅ PD	∅ RW
Central governments and central banks	-	-	-	-
Institutions	-	-	-	-
Corporates	250	57%	100%	0%
Thereof: SME	211	58%	100%	0%
Thereof: Spesialised lending exposures	-	-	-	-
Thereof: Other	38	56%	100%	0%
Retail exposures	-	-	-	-
Equity exposures	-	-	-	-
Total	**250**	**57%**	**100%**	**0%**

Table 44c: IRBA Credit Risk Positions – France

Exposure classes IRBA	PD ≤0,5%				PD >0,5% ≤5%			
	EAD in € million	∅ LGD	∅ PD	∅ RW	EAD in € million	∅ LGD	∅ PD	∅ RW
Central governments and central banks	1,169	30%	0.01%	3%	-	-	-	-
Institutions	1,644	41%	0.03%	25%	-	-	-	-
Corporates	1,004	15%	0.26%	13%	1,477	7%	1.72%	17%
Thereof: SME	771	14%	0.28%	14%	1,219	6%	1.64%	13%
Thereof: Spesialised lending exposures	-	-	-	-	-	-	-	-
Thereof: Other	233	18%	0.20%	11%	258	13%	2.09%	37%
Retail exposures	-	-	-	-	-	-	-	-
Equity exposures	-	-	-	-	-	-	-	-
Total	**3,818**	**31%**	**0.08%**	**15%**	**1,477**	**7%**	**1.72%**	**17%**

Exposure classes IRBA	PD >5% <100%				Total (excl. Default)			
	EAD in € million	∅ LGD	∅ PD	∅ RW	EAD in € million	∅ LGD	∅ PD	∅ RW
Central governments and central banks	-	-	-	-	1,169	30%	0.01%	3%
Institutions	-	-	-	-	1,644	41%	0.03%	25%
Corporates	-	-	-	-	2,481	10%	1.13%	16%
Thereof: SME	-	-	-	-	1,990	9%	1.11%	14%
Thereof: Spesialised lending exposures	-	-	-	-	-	-	-	-
Thereof: Other	-	-	-	-	491	15%	1.19%	24%
Retail exposures	-	-	-	-	-	-	-	-
Equity exposures	-	-	-	-	-	-	-	-
Total	**0**	**0%**	**0.00%**	**0%**	**5,295**	**24%**	**0.54%**	**16%**

Exposure classes IRBA	Default PD = 100%			
	EAD in € million	∅ LGD	∅ PD	∅ RW
Central governments and central banks	-	-	-	-
Institutions	-	-	-	-
Corporates	-	-	-	-
Thereof: SME	-	-	-	-
Thereof: Spesialised lending exposures	-	-	-	-
Thereof: Other	-	-	-	-
Retail exposures	-	-	-	-
Equity exposures	-	-	-	-
Total	**0**	**0%**	**0.00%**	**0%**

Table 44d: IRBA Credit Risk Positions – Great Britain

Exposure classes IRBA	PD ≤0,5%				PD >0,5% ≤5%			
	EAD in € million	∅ LGD	∅ PD	∅ RW	EAD in € million	∅ LGD	∅ PD	∅ RW
Central governments and central banks	354	11%	0.00%	0%	-	-	-	-
Institutions	24	32%	0.03%	20%	-	-	-	-
Corporates	1,570	6%	0.35%	7%	2,221	7%	1.60%	14%
Thereof: SME	1,319	5%	0.34%	6%	1,575	6%	1.70%	13%
Thereof: Spesialised lending exposures	-	-	-	-	-	-	-	-
Thereof: Other	251	7%	0.41%	10%	646	7%	1.35%	18%
Retail exposures	-	-	-	-	-	-	-	-
Equity exposures	-	-	-	-	-	-	-	-
Total	**1,949**	**7%**	**0.29%**	**6%**	**2,221**	**7%**	**1.60%**	**14%**

Exposure classes IRBA	PD >5% <100%				Total (excl. Default)			
	EAD in € million	∅ LGD	∅ PD	∅ RW	EAD in € million	∅ LGD	∅ PD	∅ RW
Central governments and central banks	-	-	-	-	354	11%	0.00%	0%
Institutions	-	-	-	-	24	32%	0.03%	20%
Corporates	132	22%	7.84%	76%	3,924	7%	1.31%	13%
Thereof: SME	61	27%	10.00%	94%	2,955	6%	1.27%	12%
Thereof: Spesialised lending exposures	-	-	-	-	-	-	-	-
Thereof: Other	71	17%	6.00%	61%	969	0	1.45%	0
Retail exposures	-	-	-	-	-	-	-	-
Equity exposures	-	-	-	-	-	-	-	-
Total	**132**	**22%**	**7.84%**	**76%**	**4,302**	**7%**	**1.20%**	**12%**

Exposure classes IRBA	Default PD = 100%			
	EAD in € million	∅ LGD	∅ PD	∅ RW
Central governments and central banks	-	-	-	-
Institutions	-	-	-	-
Corporates	-	-	-	-
Thereof: SME	-	-	-	-
Thereof: Spesialised lending exposures	-	-	-	-
Thereof: Other	-	-	-	-
Retail exposures	-	-	-	-
Equity exposures	-	-	-	-
Total	**0**	**0%**	**0.00%**	**0%**

Table 44e: IRBA Credit Risk Positions – Sweden

Exposure classes IRBA	**PD ≤0,5%** EAD in € million	∅ LGD	∅ PD	∅ RW	**PD >0,5% ≤5%** EAD in € million	∅ LGD	∅ PD	∅ RW
Central governments and central banks	64	30%	0.00%	0%	-	-	-	-
Institutions	-	-	-	-	-	-	-	-
Corporates	242	10%	0.28%	16%	1,059	12%	1.12%	26%
Thereof: SME	76	6%	0.24%	5%	812	13%	1.09%	28%
Thereof: Spesialised lending exposures	-	-	-	-	-	-	-	-
Thereof: Other	166	12%	0.30%	21%	247	8%	1.24%	19%
Retail exposures	-	-	-	-	-	-	-	-
Equity exposures	-	-	-	-	-	-	-	-
Total	**306**	**14%**	**0.22%**	**13%**	**1,059**	**12%**	**1.12%**	**26%**

Exposure classes IRBA	**PD >5% <100%** EAD in € million	∅ LGD	∅ PD	∅ RW	**Total (excl. Default)** EAD in € million	∅ LGD	∅ PD	∅ RW
Central governments and central banks	-	-	-	-	64	30%	0.00%	0%
Institutions	-	-	-	-	-	-	-	-
Corporates	-	-	-	-	1,301	11%	0.97%	24%
Thereof: SME	-	-	-	-	888	12%	1.02%	26%
Thereof: Spesialised lending exposures	-	-	-	-	-	-	-	-
Thereof: Other	-	-	-	-	413	9%	0.86%	20%
Retail exposures	-	-	-	-	-	-	-	-
Equity exposures	-	-	-	-	-	-	-	-
Total	**0**	**0%**	**0.00%**	**0%**	**1,365**	**12%**	**0.92%**	**23%**

Exposure classes IRBA	**Default PD = 100%** EAD in € million	∅ LGD	∅ PD	∅ RW
Central governments and central banks	-	-	-	-
Institutions	-	-	-	-
Corporates	-	-	-	-
Thereof: SME	-	-	-	-
Thereof: Spesialised lending exposures	-	-	-	-
Thereof: Other	-	-	-	-
Retail exposures	-	-	-	-
Equity exposures	-	-	-	-
Total	**0**	**0%**	**0.00%**	**0%**

Table 44f: IRBA Credit Risk Positions – Spain

Exposure classes IRBA	PD ≤0,5%				PD >0,5% ≤5%			
	EAD in € million	∅ LGD	∅ PD	∅ RW	EAD in € million	∅ LGD	∅ PD	∅ RW
Central governments and central banks	545	42%	0.05%	29%	1	43%	1.00%	73%
Institutions	4	22%	0.43%	53%	-	-	-	-
Corporates	158	13%	0.21%	13%	-	-	-	-
Thereof: SME	158	13%	0.21%	13%	-	-	-	-
Thereof: Spesialised lending exposures	-	-	-	-	-	-	-	-
Thereof: Other	-	-	-	-	-	-	-	-
Retail exposures	-	-	-	-	-	-	-	-
Equity exposures	-	-	-	-	-	-	-	-
Total	**708**	**35%**	**0.09%**	**25%**	**1**	**43%**	**1.00%**	**73%**

Exposure classes IRBA	PD >5% <100%				Total (excl. Default)			
	EAD in € million	∅ LGD	∅ PD	∅ RW	EAD in € million	∅ LGD	∅ PD	∅ RW
Central governments and central banks	-	-	-	-	546	42%	0.05%	29%
Institutions	-	-	-	-	4	22%	0.43%	53%
Corporates	-	-	-	-	158	13%	0.21%	13%
Thereof: SME	-	-	-	-	158	13%	0.21%	13%
Thereof: Spesialised lending exposures	-	-	-	-	-	-	-	-
Thereof: Other	-	-	-	-	-	-	-	-
Retail exposures	-	-	-	-	-	-	-	-
Equity exposures	-	-	-	-	-	-	-	-
Total	**0**	**0%**	**0.00%**	**0%**	**708**	**35%**	**0.09%**	**25%**

Exposure classes IRBA	Default PD = 100%			
	EAD in € million	∅ LGD	∅ PD	∅ RW
Central governments and central banks	-	-	-	-
Institutions	-	-	-	-
Corporates	0.4	71%	100%	0%
Thereof: SME	0.4	71%	100%	0%
Thereof: Spesialised lending exposures	-	-	-	-
Thereof: Other	-	-	-	-
Retail exposures	-	-	-	-
Equity exposures	-	-	-	-
Total	**0.4**	**71%**	**100%**	**0%**

The loss given default (LGD) indicates the loss ratio suffered by the bank if a customer failed to pay. For non-defaulting IRBA exposures this is 19 % on average (31 December 2015: 21 %).

The probability of default (PD) which, irrespective of the exposure amount and the collateral provided, indicates the probability that a borrower/counterparty will be unable over a year to service their debt is 0.61 % on average for non-defaulting IRBA exposures (31 December 2015: 0.58 %).

The probabilities of default (PD) and loss given defaults (LGD) used by pbb Group are defined as so-called through-the-cycle risk parameters representing multiannual average values. The current default and loss rates (so-called point-in-time risk parameters) may differ from through-the-cycle values depending on the current position in the economic cycle.

The average risk weight for non-defaulting IRBA exposures across all IRBA exposure classes is 20 % (31 December 2015: 20 %). Risk weights are important factors when determining risk-weighted assets (RWA) which must be backed with own funds in a risk-oriented manner; RWAs are calculated by multiplying the risk weight with the IRBA exposure at default (EAD).

Retail business (e. g. small volume retail loans where the customer credit rating is determined based on a retail scoring but which are phased out as set out in Article 150, Point (c) CRR in conjunction with Section 14 SolvV) as well as shareholdings which were held prior to 1 January 2008 according to Article 495 (1) CRR are exempt from the IRB approach.

Undrawn IRBA Credit Commitments

According to Article 452, Point e (iii) CRR, the following Tables show the exposure for undrawn credit commitments. According to the regulatory disclosure requirements, pbb Group shows the total amount of undrawn credit commitments (including their assessment basis, column A) as well as the commitment-weighted average exposure value (Ø EAD, column C) for every IRBA exposure class. In addition, the exposure of undrawn credit commitments (the sum of undrawn credit commitments, weighted by a credit conversion factor (CCF), column B) as well as the weighted average CCF (Ø CCF, column D) per IRBA exposure class is shown.

As required by Article 452, Point j (i) CRR, the information is shown altogether and additionally by geographic region of the credit risk positions. Undrawn credit commitments totalling € 3,876 million are distributed as follows:

- Germany € 3,332 million or 86 %
- France € 223 Mio. million or 6 %
- Great Britain € 301 Mio. million or 8 %
- Sweden € 20 Mio. million or 1 %
- Spain € 0.4 Mio. million or < 1 %

There are no undrawn credit commitments from transactions of the subsidiaries in Japan and India (both companies are in liquidation).

Table 45a: Undrawn IRBA Credit Commitments – Total

All figures in € million

Exposure classes IRBA	(A) **Total value of undrawn commitments**	(B) **Position value of undrawn commitments**	(C) **Ø EAD**	(D) **Ø CCF**
Central governments and central banks	116	116	34	100%
Institutions	419	419	45	100%
Corporates	3,340	2,470	26	74%
Thereof: Small and medium-sized enterprises (SME)	1,610	1,265	24	79%
Thereof: Other	1,730	1,205	28	70%
Retail exposures	-	-	-	-
Equity exposures	-	-	-	-
Total	**3,876**	**3,006**	**28**	**78%**

Table 45b: Undrawn IRBA Credit Commitments – Germany

All figures in € million

Exposure classes IRBA	(A) **Total value of undrawn commitments**	(B) **Position value of undrawn commitments**	(C) **Ø EAD**	(D) **Ø CCF**
Central governments and central banks	45	45	25	100%
Institutions	315	315	53	100%
Corporates	2,972	2,286	28	77%
Thereof: Small and medium-sized enterprises (SME)	1,294	1,107	26	86%
Thereof: Other	1,678	1,179	29	70%
Retail exposures	-	-	-	-
Equity exposures	-	-	-	-
Total	**3,332**	**2,646**	**30**	**79%**

Table 45c: Undrawn IRBA Credit Commitments – France

All figures in € million

Exposure classes IRBA	(A) **Total value of undrawn commitments**	(B) **Position value of undrawn commitments**	(C) **Ø EAD**	(D) **Ø CCF**
Central governments and central banks	20	20	5	100%
Institutions	81	81	23	100%
Corporates	122	61	6	50%
Thereof: Small and medium-sized enterprises (SME)	105	52	6	50%
Thereof: Other	18	9	1	50%
Retail exposures	-	-	-	-
Equity exposures	-	-	-	-
Total	**223**	**162**	**12**	**73%**

Table 45d: Undrawn IRBA Credit Commitments – Great Britain

All figures in € million

Exposure classes IRBA	(A) **Total value of undrawn commitments**	(B) **Position value of undrawn commitments**	(C) **Ø EAD**	(D) **Ø CCF**
Central governments and central banks	52	52	52	100%
Institutions	23	23	12	100%
Corporates	226	113	15	50%
Thereof: Small and medium-sized enterprises (SME)	197	98	16	50%
Thereof: Other	29	14	6	50%
Retail exposures	-	-	-	-
Equity exposures	-	-	-	-
Total	**301**	**188**	**21**	**63%**

Table 45e: Undrawn IRBA Credit Commitments – Sweden

All figures in € million

Exposure classes IRBA	(A) **Total value of undrawn commitments**	(B) **Position value of undrawn commitments**	(C) **Ø EAD**	(D) **Ø CCF**
Central governments and central banks	-	-	-	-
Institutions	-	-	-	-
Corporates	20	10	5	50%
Thereof: Small and medium-sized enterprises (SME)	14	7	7	50%
Thereof: Other	6	3	2	50%
Retail exposures	-	-	-	-
Equity exposures	-	-	-	-
Total	**20**	**10**	**5**	**50%**

Table 45f: Undrawn IRBA Credit Commitments – Spain

All figures in € million

Exposure classes IRBA	(A) **Total value of undrawn commitments**	(B) **Position value of undrawn commitments**	(C) **Ø EAD**	(D) **Ø CCF**
Central governments and central banks	-	-	-	-
Institutions	-	-	-	-
Corporates	0.4	0.4	0.2	100%
Thereof: Small and medium-sized enterprises (SME)	0.4	0.4	0.2	100%
Thereof: Other	-	-	-	-
Retail exposures	-	-	-	-
Equity exposures	-	-	-	-
Total	**0.4**	**0.4**	**0.2**	**100%**

pbb Group calculates the exposure at default (EAD) of undrawn credit commitments based on the following credit conversion factors (CCF): 50 % for mortgage loans and 100 % for all other products (e. g. guarantees and public sector financing). The CCF for mortgage loans has been increased in the fourth quarter of 2016 as a result of regulatory review of previously 40 % to 50 %, thereby the risk exposure value (EAD) for undrawn commitments, particularly in new business, increased.

As at the reporting date 31 December 2016, IRBA credit commitments of € 3,876 million (31 December 2015: € 3,547 million) were undrawn, the related weighted average CCF was 78 % (31 December 2015: 51 %).

Expected and Actual Losses

According to Article 452, Points (g) and (i) CRR, the following Tables show the expected losses for commercial real estate financing loans of the Real Estate Finance (REF) segment without problem loans for which a value adjustment was already recognised and without losses incurred in the financial year. The Tables apply to receivables where pbb Group calculates the risk-weighted exposures based on the Advanced IRB Approach.

Table 46: Losses Incurred in the Lending Business – Development

All figures in € million

Exposure classes IRBA	**Incurred loss** (IFRS)		**Incurred loss** (IFRS)		**Incurred loss** (IFRS)	
	31.12.2016	change to previous year	31.12.2015	change to previous year [1)]	31.12.2014	change to previous year
Central governments and central banks	-	-	-	-	-	-
Institutions	-	-	-	-	-	-
Corporates	5	-2	7	-11	18	k.A.
Thereof: SME	3	-3	6	-4	10	k.A.
Thereof: Spesialised lending exposures	-	-	-	-	-	-
Thereof: Other	2	1	1	-7	8	k.A.
Equity exposures	-	-	-	-	-	-
Retail exposures	-	-	-	-	-	-
Total	**5**	**-2**	**7**	**-11**	**18**	**39**

1) The Disclosure Report 2015 is the first independent disclosure report of pbb Group after privatisation of pbb in July 2015. Insofar, only the realised losses beginning from 2014 are opposed in accordance with CRR article 452 (i).

Incurred losses are defined as the sum of additions and releases of individual value adjustments in the lending business, additions and releases of provisions in the lending business, direct write-downs and recoveries on loans previously written off.

The expected loss (EL) over a period of one year is determined for all exposures except for problem loans for which an individual value adjustment has already been recognised. The EL is calculated based on the parameters defined by CRR, i.e. the annual probability of default (PD) multiplied by the loss given default (LGD) and the exposure at default (EAD).

Table 47: Expected and Incurred Losses in the Lending Business

All figures in € million

Exposure classes IRBA	Losses 12/2016		Losses 12/2015 [2]		Losses 12/2014	
	Expected loss [1]	Incurred loss (IFRS)	Expected loss [1]	Incurred loss (IFRS)	Expected loss [1]	Incurred loss (IFRS)
Central governments and central banks	-	-	-	-	-	-
Institutions	-	-	-	-	-	-
Corporates	38	5	45	7	96	18
Thereof: SME	26	3	34	6	56	10
Thereof: Spesialised lending exposures	-	-	-	-	-	-
Thereof: Other	12	2	11	1	40	8
Equity exposures	-	-	-	-	-	-
Retail exposures	-	-	-	-	-	-
Total	**38**	**5**	**45**	**7**	**96**	**18**

1) Expected loss for real estate financings (mortgage loans and current account loans), excl. problem loans, for which an allowance exists.
2) The Disclosure Report 2015 is the first independent disclosure report of pbb Group after privatisation of pbb in July 2015.
Insofar, only the realised losses beginning from 2014 are opposed in accordance with CRR article 452 (i).

The loss incurred on real estate financing loans according to the IRB approach amounted to net additions of € 5 million (2015: € 7 million). Individual value adjustments and provisions in the loan business were limited to a few credit exposures and amounted to net additions of € 9 million (2015: € 10 million net additions). The additions were reflected in recoveries on written-down loans of € 4 million (2015: € 3 million).

As of 31 December 2016, the expected loss for real estate financing loans without problem loans for which a value adjustment had already been recognised totalled € 38 million (31 December 2015: € 45 million). The decline in the expected loss is mainly due to repayments and the updating of the parameters of the LGD model (in the course of annual validation) for domestic real estate financing.

Generally it should be noted that future cyclical swings or changes to individual risks may lead to changes in the expected loss as well. Furthermore, incurred losses may differ from expected losses.

Over time, pbb Group's default and loss history may lead to adjustments of estimated risk parameters within the framework of annual checks to identify the need for a re-calibration. The loss given default rate (LGD) for non-defaulting real estate loans was 11 % on average (31 December 2015: 12 %). For the complete Real Estate Finance portfolio, the average LGD was 12 % (31 December 2015: 13 %). The probability of default (PD) for non-defaulting real estate loans was 1.0 % on average (31 December 2015: 1.1 %).

This improvement of the average parameter values was mainly due to an improvement in the credit quality in new business compared to the repayment of real estate financing, in particular to higher real estate market values, as well as a decrease in the problem loan volume which tends to have a higher LGD than the performing portfolio.

5.5.2 Credit Risk Mitigation Techniques

According to Article 453 CRR this chapter describes the credit risk mitigation techniques used by pbb Group. The strategic business of pbb Group includes commercial real estate financing and public investment financing with a focus on Pfandbrief-eligible transactions. Within the framework of credit risk mitigation, pbb Group accepts the following collateral:

- real estate
- financial securities
- suretyships and guarantees.

In this context, particularly mortgages (commercial real estate financing operations) play an important role. Furthermore pbb Group accepts financial securities (cash collateral and fixed-interest securities) as well as suretyships and guarantees as collateral.

Cash collateral is mainly used for derivative credit risk positions. In the derivatives business counterparties are mostly OECD banks and OECD financial institutions. Guarantors are mostly financial institutions as well as public-sector customers. The guarantors and the credit derivative counterparties have a very good credit rating. The most important guarantors are addressed in pbb Group's risk reporting on a regular basis.

For estimating the loss at default within the framework of the LGD calculation, impersonal securities are considered as credit risk mitigating and for calculating the EAD (exposure at default), financial securities are considered as credit risk mitigating. Suretyships and guarantees are considered as credit risk mitigating by way of a regular PD substitution. This ensures that the secured portion of an exposure is attributed the lower risk weight of the guarantor.

In real estate financing (REF), the financing collaterals comprise next to mortgages usually amongst others also rental concessions and the assignment of insurance services, which are not credit risk mitigants considered in accordance with CRR.

At pbb Group, the procedures for accepting collateral are governed by internal processing guidelines for every type of collateral. In order to enable legal enforceability, usually standard contracts are used. Against the background of changing legislative environments these contracts are continuously reviewed. For this purpose, a group-wide process has been implemented to ensure that all CRR related collateral is subject to an ongoing legal enforceability monitoring. The calculation and fixing of the collateral values is transparently documented. Expert opinions used to estimate a liquidation value provide information on the marketability of collateral.

According to Article 453, Points (f) and (g) CRR, the two following Tables show the exposures secured using eligible collateral, separately for the two approaches applied by pbb Group to determine the capital requirements relating to the credit risk (Advanced IRB approach based on internal ratings and CRSA Approach).

Table 48a: Secured IRBA Credit Risk Positions

All figures in € million

Exposure classes IRBA	Financial Securities	Other/ physical Securities	Guarantees and Credit Derivatives	Life insurances
Exposures to central governments and central banks	-		535	-
Exposures to institutions	-		1,311	-
Exposures to corporates	-		2,690	-
Thereof: Small and medium-sized enterprises (SME)	-		75	-
Thereof: Other	-		2,616	-
Retail exposures	-		-	-
Equity exposures	-		-	-
Other non credit-obligation assets	-		-	-
Total	**0**		**4,537**	**0**

Table 48b: Secured CRSA Credit Risk Positions

All figures in € million

Exposure classes CRSA	Financial Securities	Guarantees and Credit Derivatives	Life insurances
Exposures to central governments and central banks	-	-	-
Exposures to regional governments and local authorities	-	-	-
Exposures to other public sector entities	-	-	-
Exposures to multilateral development banks	-	-	-
Exposures to international organisations	-	-	-
Exposures to institutions	-	-	-
Exposures to corporates	-	778	-
Retail exposures	-	-	-
Exposures secured by mortgages on immovable property	-	-	-
Exposures in default	-	3	-
Exposures associated with particularly high risk	-	-	-
Exposures in the form of covered bonds	-	-	-
Exposures to institutions and corporates with short-term credit assessment	-	-	-
Exposures in the form of units or shares in collective investment undertakings (CIUs)	-	-	-
Equity exposures	-	-	-
Other items	-	-	-
Total	**0**	**781**	**0**

Valuation and Administration of Collateral

Depending on the type of collateral, pbb Group uses different valuation, control and verification methods. These are a substantial part of the event-driven and annual credit commitment assessment and credit approval processes mentioned above.

For the valuation of the various types of collateral, pbb Group has established processing principles. The value of collateral is reviewed either within the framework of the credit approval, within the regular annual review of borrowers or in the event of material changes. Collateral subject to major value fluctuations demands for more frequent monitoring as specified in the contract, however at least on a quarterly basis.

The valuation of mortgage is generally based on a written valuation opinion and is documented in writing. Value fluctuations are monitored by pbb Group on an ongoing basis using defined parameters (e. g. loan to value).

Real Estate

Each property used as collateral is subject to a written market value opinion prepared by a property valuer or an independent expert. For real estate collateral intended for the Pfandbrief cover pool (for refinancing using Pfandbrief issues) an additional loan value report is prepared. Third-party opinions are subject to a plausibility check carried out by an internal real estate expert.

The regular monitoring and review of real estate collateral is directed towards the market value of the property:

- Monitoring is aimed at identifying property types and/or markets (or combinations of both) where a potential loss in value may have occurred, the identification is carried out based on the records and available information. For this purpose, a rough analysis is sufficient without taking into consideration individual properties.
- Reviews are carried out in order to further check properties identified within the framework of the monitoring process. Independent of the monitoring outcome, real estate collateral with a loan sum exceeding € 3 million is reviewed at least every three years.
- Revaluations apply to properties which have seen a market price decline of over 10 % as well as for properties which, according to Article 208 (3), Point (b) CRR are subject to a mandatory revaluation at least every three years. In these cases, the current market value and, as the case may be, the current loan value are determined by an independent property valuer.

For more information on quality aspects in connection with the valuation of real estate by pbb Group, please refer to “Risk Hedging and Risk Mitigation” of Chapter 5.1 “Management of Credit Risk (Counterparty Credit Risk)”.

Suretyships/guarantees

pbb Group accepts suretyships and guarantees as collateral for the purpose of risk management as well as for risk mitigation according to Articles 213 to 215 CRR. For a recognition as credit risk mitigating collateral both the guarantees/deposits and the guarantors must meet the regulatory requirements. Suretyships and guarantees are accounted for as credit risk mitigating by way of a regular PD substitution.

Financial Collateral

pbb Group uses financial collateral (cash collateral and securities) within the framework of netting agreements in the context of derivative or securities lending (repo) transactions.

While cash collateral is usually provided for bilateral repo transactions, repo transactions cleared by a central counterparty are typically subject to securities. pbb provides or receives cash collateral usually in Euro. The collateral is provided via title transfer. As far as derivatives are cleared by a central counterparty, collateral is provided either by pledges for securities or by providing cash collateral via title transfer.

Collateral must meet the regulatory requirements for being eligible for credit risk mitigation purposes in line with CRR.

Eligible Netting Agreements

pbb Group uses netting agreements within the framework of security lending transactions (repo transactions) and mainly for derivative financial instruments as far as contractual agreements meet the requirements of Article 206 CRR.

Usually derivatives transactions are carried out using standardised mutual netting agreements as described in Chapter 5.4.1 “Derivative Counterparty Credit Risk Positions and Netting Positions“. This allows for netting of mutual exposure, thereby reducing the credit risk to one single net claim due from the contracting party. As at the reporting date, pbb Group used derivative netting of € 3,011 million (31 December 2015: € 4,751 million). Within the framework of security lending transactions, pbb Group used € 1,758 million (31 December 2015: € 374 million).

Risk Concentrations

Real estate mortgage deeds, as a part of the eligible hedging instruments, may present major risk concentrations due to the natural correlation of these impersonal securities with the general development of the real estate market in a given country. The Risk and Opportunity Report of the Annual Report 2016 shows a split of the loan portfolio by regions as well as by loan and property types. pbb Group limits risk concentrations through the management of country-related limits.

Depending on the results of the internal rating process, each country or country group is assigned a limit within defined rating corridors which governs pbb Group’s business activities. All country ratings and limits are reviewed by Credit Risk Management at least once per year.

6 Market Risk

6.1 Market Risk Management

Definition

Market risk is defined as the risk of a loss of value resulting from the fluctuation of the market values of financial instruments. Transactions entered into by pbb Group are mainly exposed to the following types of market risk:

- Credit spread risk (risk from changes in credit spreads)
- General interest rate risk (risk from changes in market interest rates)
- Volatility risk (risk from changes in implied volatility)
- Foreign currency risk (risk from changes in foreign exchange rates)
- Basis risk (risk from changes in OIS spreads, tenor spreads, and cross-currency basis spreads)
- Concentration risk (risk of additional losses due to a non-diversified portfolio mix).

Risk Strategy

pbb Group adheres to the following fundamental principles in relation to market risks:

- Transactions may be conducted exclusively in financial instruments which have successfully passed the new product process, and for which market values are either observable or determinable via a model.
- All positions entered into are subject to daily monitoring, in terms of risk and performance, by the unit Risk Management & Control (RMC).

Organisation

Positions are monitored by the RMC unit, which is separated from trading in the structural organisation, right through to senior management.

Risk Reporting

RMC prepares detailed market risk reports for various recipients, on a daily basis:

- The daily Market Risk Report is addressed to the Management Board of pbb Group in particular. It outlines value-at-risk (VaR) attributable to market risk, limit utilisations and economic performance figures across all levels of the portfolio structure.
- Daily sensitivity reports comprise analyses for the main risk factors, at various levels of detail. They are also made available to the Management Board.

Risk Quantification – Market Risk Measurement and Market Risk Limitation

Market Risk – Value-at-Risk

RMC determines VaR attributable to market risk, at an overall as well as partial portfolio level, on a daily basis, using a simulated model based on historical data. All positions are taken into account for determining VaR, whereby the credit spread VaR from items classified under IFRS category Loans & Receivables is not taken into consideration within market risk, but in credit risk.

- The simulation model is based on historical market data of the past seven years, which is incorporated in the simulation with an equal weighting.
- Individual types of market risk are aggregated to form a total VaR, which forms the basis of limit monitoring.
- For the purposes of daily operational risk management, VaR is determined using a holding period of ten days and a one-sided 99 % confidence interval.

The increase in interest rate risks in the third quarter of 2016 was due to measurement and recognition effects of embedded interest rate floors in connection with asset and liability items bearing variable rates of interest. Such interest rate floors, resulting from legal restrictions as well as contractual stipulations, should prevent the disbursement of interest payments to borrowers, or issuers of bearer bonds, due to negative interest rates. Using appropriate hedging transactions, pbb was able to reduce these risks during the second half of 2016, while total VaR was hardly affected at any time. During the fourth quarter of 2016, the model used for the calculation of economic capital for market risk was adjusted. Further it was integrated into the VaR model for consistency reasons, which eventually led to higher credit spreads and an increased total VaR.

Market risk VaR as at end of 2016 amounted to € 74 million, taking diversification effects between the individual market risk types into consideration (end of 2015: € 67 million). There were no breaches of market risk VaR limits at pbb Group level during the period under review. The market risk limit of pbb Group was increased from € 90 million to € 100 million as part of regular adjustments carried out at the beginning of 2016.

The VaR assessment is complemented by additional tools, such as sensitivity analysis, stress tests and back-testing.

Sensitivity Analyses

Overnight yield curves are used for the purposes of measurement relevant to sensitivity analyses. Sensitivity analyses quantify the impact of changes in individual market parameters upon the value of positions. For instance, the credit spread sensitivity provides an indication of the change in economic present value which results from a one basis point increase in the credit spreads which are relevant for measurement purposes.

Stress Tests

Whilst VaR measures market risk in «normal» market conditions and does not provide a measure for potential maximum losses, stress scenarios are used to show market risk in extreme monthly basis, to determine the impact of extreme changes in yield curves, foreign exchange rates, credit spreads and volatility on the economic present value of pbb Group's overall portfolio. Historical stress scenarios are simulated additionally. The 200 basis point parallel upwards shift in the yield curve – as required by regulatory authorities – would have resulted in market value profits of € 84 million as at end of 2016 (end of 2015: market value losses of € 116) on the aggregate exposure of pbb Group. Conversely, a 200 basis point parallel downwards shift in the yield curve would have resulted in market value losses of € 60 million (end of 2015: market value profits € 19 million). In order to reflect current prudential practices, customer margins have been applied in the simulations for the first time, which primarily accounts for the changes compared to the previous year. Discount rate curves which reflect the respective credit risk of transactions are now used for discounting; in the past, only swap curves were used for this purpose. The asymmetry between potential profits and losses is due, in particular, to the fact that the 200 basis point downward shift is capped at an interest rate of zero per cent. An extreme increase in the relevant credit spreads would have resulted in market value losses of € 267 million as at end of

2016. The Management Board and the executive bodies are informed about the results of stress test scenarios on a regular basis. conditions. pbb Group employs hypothetical stress scenarios for the main types of market risk, on a regular basis.

Back Testing

The quality of the risk measurement methods in use is checked on an ongoing basis by comparing one-day VaR figures to the actual changes occurring in the portfolio's present value on a daily basis. pbb Group has adopted the Basel Capital Accord's "traffic light" system for the qualitative analysis of its risk model. For this purpose, the number of outliers detected in backtesting within a period of 250 trading days are counted. Overall, two outliers were observed as at end of 2016, based on a data history of 250 trading days which both were mainly attributable to extraordinarily strong fluctuations of credit spreads. The risk model employed by pbb Group therefore has "green" status, as defined in the "traffic light" system of the Basel Capital Accord.

Economic Market Risk Capital

The chapter 4.2 "Economic Capital and Risk-Bearing Capacity" provides details concerning the calculation as well as the quantification of economic capital for market risk.

Mapping and Recognition of Economic Hedges as On-balance-sheet Hedges

The concept of hedge accounting refers to specific accounting rules applicable to hedge relationships in accordance with IAS 39, entered into for the purpose of neutralising the change in value of the hedged underlying transaction against the change in value of the hedging instrument to a large extent. The criteria set out in IAS 39 must be satisfied for a hedge to be recognised accordingly. To a certain extent, these criteria – such as the requirements relating to hedge effectiveness – are inconsistent with the methods applied to bank management. As a result, there may be differences between economic hedges and hedge relationships recognised on the balance sheet.

Risk Management, Monitoring and Mitigation

pbb Group uses a three-pillar approach for managing and monitoring market risk:

- management of positions maintained by the Treasury
- risk measurement and monitoring compliance with limits by RMC and
- escalation processes across all decision-making bodies, right through to the Management Board.

For all positions, market risk is monitored through a combination of value-at-risk (VaR) limits and monitoring of sensitivities by RMC, which is independent from trading units.

Credit Spread Risk

Credit spread risk reflects potential changes in the present value of exposures as a result of changes in the corresponding credit spread. The majority of credit spread risk is attributable to assets eligible as cover for Pfandbriefe. The Bank has risk measurement systems in place for calculating credit spread risk for all relevant exposures. Only credit spread risks of holdings classified under IFRS category "available for sale" (AfS) are subject to VaR limitation.

The credit spread VaR for the AfS portfolio amounted to € 100 million at the end of December 2016; the year-on-year increase (end of 2015: € 82 million) was primarily due to the model adjustment during the fourth quarter of 2016 as outlined above.

General Interest Rate Risk

General interest rate risk increased significantly to € 33million as at end of 2016, compared to € 21 million as at end of 2015. As described earlier, the increase in General Interest Rate Risk was due to measurement and recognition effects of embedded interest rate floors in connection with asset and liability items bearing variable rates of interest.

Volatility Risks

VaR used for the measurement of volatility risk amounted to € 9 million as at year-end 2016 (end of 2015: € 9 million). As described earlier, the increase in volatility risk in the second half of 2016 was due in particular to measurement and recognition effects of legal or contractual interest rate floors in connection with financial instruments bearing variable rates of interest. Subsequently pbb was able to reduce volatility risk by using appropriate hedging transactions.

Other Market Risks

The present value of foreign currency risk was € 12 million as at end of 2016 (end of 2015: € 2 million). As described earlier, the increase in the second half of 2016 was due in particular to measurement and recognition effects of legal or contractual interest rate floors in connection with financial instruments bearing variable rates of interest.

Basis risks include OIS, cross-currency spread and tenor spread basis risks (including Libor/Euribor basis risks); these are quantified and recognised within the framework of the VaR model. All basis risks are included in aggregate VaR and are therefore subject to market risk limitation. The bank reported overnight index risks of € 8 million, tenor spread risks of € 0.4 million, and cross-currency spread risks of € 2 million on the reporting date. The bank is not exposed to share price or commodity risks. Financial derivatives are mainly used for hedging purposes.

Opportunities

As detailed above, the sensitivities result in value at risk: a possible future (economic) loss in the event of an unfavourable market development. The very same sensitivities may also result in economic gains, in the event of a positive market development. For instance, as described above, high negative credit spread sensitivities represent a risk. In the event of a narrowing of the relevant credit spreads, however, these credit spread sensitivities will yield economic profits, constituting an opportunity. Within the framework of the stress scenarios required by supervisory authorities, for example, a 200 basis point parallel upwards shift of the interest rate curve provides the opportunity for a market value gain of € 84 million.

6.2 Capital Requirements for Market Risk

According to Part 3, Title IV CRR, market risk must be backed with own funds. pbb Group does not maintain a trading book for portfolios with short-term profit taking, meaning that pbb Group's business is exclusively subject to capital requirements on foreign currency risks of the banking book as shown in the following table according to Article 445 CRR. There are no position risks or commodity risks. pbb Group uses the standardised approach according to Article 325 et seq. CRR to calculate the own funds requirement for market risks.

Table 49: Own Funds Requirement for Market Risk

All figures in € million

Market risk	Own funds requirements		
	31.12.2016	31.12.2015	Change
Position risk	-	-	-
Thereof general and specific risk of debt securities and stock instruments (net position)	-	-	-
Thereof specific risk for securitisation positions that are part of the CTP [1]	-	-	-
Thereof particular risk for securitisation positions of the trading book that are not part of the CTP [1]	-	-	-
Foreign exchange risk	28	6	361%
Commodity price risk	-	-	-
Total	**28**	**6**	**361%**

1) Correlation Trading Portfolio (CTP)

As at the reporting date, the own funds required to cover market risks amounted to € 28 million (31 December 2015: € 6 million).

6.3 Interest Rate Risk in the Banking Book

Unlike credit risks, other market risks (foreign exchange risks) or operational risks, interest rate risks in the banking book are not subject to any regulatory capital requirements. Deutsche Pfandbriefbank AG (pbb) is subject to direct supervision by the European Central Bank (ECB) and is therefore not required to apply the additional own funds requirements for interest rate risks in the investment fund pursuant to BaFin's Ordinance of 23 December 2016 (Business Name: BA 55-FR 2232-2016/0001). On the other hand, pbb fulfills the additional capital requirements and capital requirements of the ECB according to the supervisory review and evaluation process (SREP).

Notwithstanding the above, pbb Group applies the same methods and processes to interest rate risks in the asset ledger as for market risk measurement. These are described in more detail in Chapter 6.1 above "Market Risk Management".

At pbb Group the interest rate risk in the banking book is determined by Risk Management & Control on a daily basis, independently of trading. For this purpose all interest sensitive positions of the banking book are considered. The compliance with VaR limits is verified and reported to the Management Board of pbb. According to regulatory provisions, any equity components which are not interest-bearing (liabilities side) are not considered (cf. circular 11/2011 of BaFin "Zinsänderungsrisiken im Anlagebuch; Ermittlung der Auswirkungen einer plötzlichen und unerwarteten Zinsänderung"). However the assets of these means are shown. Furthermore, assumptions concerning the retention period of value adjustments as well as their period of interest rate fixation are made. No specific assumptions concerning premature repayment of loans are made.

According to Article 448, Point (b) CRR, the following Table shows the interest rate risk in the banking book, i.e. the increase or decrease of the net present value in the event of an interest rate shock as well as the change of the net present value as a percentage of eligible own funds. The net present value change in stress situations is not split by currencies but the interest rate curves of all currencies are put under stress at the same time and the total value changes are shown.

Table 50: Interest Rate Risks in the Banking Book

	Interest rate risk in the banking book					
	Cash value before interst shock		Change in cash value in € million		Change in cash value in % of own funds 1)	
	31.12.2016	31.12.2015	31.12.2016	31.12.2015	31.12.2016	31.12.2015
Interest shock + 200 Bp	n/a	n/a	84	-116	2.7%	-3.7%
Interest shock - 200 Bp			-60	19	-1.9%	0.6%

1) Regulatory own funds as of 31. December 2015: 3.140 € million.
Regulatory own funds as of 31. December 2016: 3.105 € million.

For interest stress scenarios of + 200 basis points / - 200 basis points, pbb Group had a negative net present value change potential in the banking book of € 60 million as of 31 December 2016, and this equals 1.9 % of regulatory capital. This net present value change would occur in the event of an interest rate change of - 200 basis points and it is clearly less than in the previous year (31 December 2015: € - 116 million; calculated for an interest rate change of + 200 basis points).

The change in the present value loss compared to the previous year's figures is essentially due to the fact that margins (including customer margins) are now included in the calculation, whereas previously only internal rates (excluding customer margins) have been taken into account. The discounting is now carried out using a discount curve, which reflects the credit risk of the transactions, whereas in the past it has been discounted using swap curves only.

The asymmetry between profit and loss potential is mainly due to the fact that the described 200 basis point shift downwards according to the regulatory requirements takes place up to a maximum interest rate of 0 % and negative interest rates are not yet postponed. However, the upward shift of the curves is always 200 basis points.

7 Liquidity Risk

7.1 Liquidity Risk Management

Definition

Liquidity risk is defined as the risk of not being able to meet the amount and/or due dates of existing or future payment obligations, in full or on time.

Risk Strategy

The liquidity risk strategy is a key component of pbb Group's risk strategy. It is broken down into various modules (comprising various liquidity scenarios, given certain market conditions and stress parameters). This should ensure that the Group's short- and medium-term funding is monitored and managed by means of a limit system, whereby the limits are defined as part of the annual business planning process.

Organisation

Risk Management & Control (RMC) identifies, measures, reports and monitors liquidity risk. The Treasury department, which is independent from RMC, is responsible for managing liquidity risk. The processes and methods employed are reviewed on a regular basis by the Risk Committee and the Asset Liability Committee. Liquidity Risk cannot be calculated and reported at a business segment level.

Risk Reporting

Liquidity management reports are prepared daily and submitted to the Management Board, as well as to the Joint Supervisory Teams (JSTs) of ECB and national competent authorities (BaFin and Deutsche Bundesbank). The reports contain up-to-date information on the day's liquidity situation as well as forecasts made using contractual cash flows and in recognition of future events that could potentially influence liquidity developments.

Risk Quantification – Liquidity Risk Measurement and Limitation

To manage liquidity risks, pbb has established a system for measuring and limiting short-term and medium-term variances within cash flows. This incorporates both contractual as well as optional cash flows. The data is subject to regular back-testing.

The liquidity position resulting from the liquidity reserve as well as contractual and optional cash flows is measured in different scenarios, with three liquidity positions being projected on a daily basis. The projections assume:

- unchanged market and funding conditions (base scenario)
- a risk scenario (modified [historical] stress scenario) and
- liquidity stress ([historical] stress scenario).

For instance, the risk and the (historical) stress scenario simulate possible client behaviour in "stress situations". Historical time series are used to calculate 95 % and 99 % quantiles.

Liquidity risk triggers (early warning triggers) have been defined for a 24-month horizons in the base scenario. Limits in the risk and the (historical) stress scenario are applicabel for a six- respectively three-month horizon.

The limit system consists of:

- limits relating to the liquidity stress profile (risk scenario and (historical) stress scenario); and
- triggers for the base scenario as well as the six-month bucket of [historical] stress-szenario.

In addition to reporting, pbb Group uses stress tests, conducted at regular intervals, for investigating the impact of additional stress events on the liquidity position.

Scenario analyses are performed to simulate the potential impact of crises attributable to macroeconomic, monetary policy or political crises on the liquidity situation.

The scenarios are reported to the Management Board, as well as to external bodies such as the Joint Supervisory Teams (JSTs) of ECB and national competent authorities (BaFin and Deutsche Bundesbank).

Risk Monitoring and Risk Management

Monitoring of liquidity risks is ascertained through daily reporting of the liquidity situation and a defined escalation process. A liquidity emergency plan has also been adopted in this context; this plan forms the functional and organisational framework for the handling of any liquidity shortages.

Liquidity risk management is based on various interconnected components (daily and monthly liquidity reports), which are based on a "liquidity risk tolerance" defined by the Management Board. This should ensure that pbb Group has adequate liquidity reserves at its disposal.

Risk Hedging and Risk Mitigation

A risk tolerance system is in place, to limit liquidity risk. Risk tolerance is integrated in the liquidity management process by means of triggers (limit system), in order to ensure a "survival period" for pbb Group in stressed conditions.

The limits applicable for risk tolerance are determined in line with stress scenarios, and adjusted at regular intervals.

Opportunities

pbb Group's cumulative liquidity position of € 6.8 billion in the base scenario over a 12-month horizon, which is described in chapter 7.2 "Development of Liquidity risks", section "Development of Risk positions within pbb Group", as at 31 December 2016 provides the Group with scope for a flexible response, particularly with regard to possible new business.

If the external factors specified in chapter 7.2 "Development of Liquidity risks" in the section "Anticipated Liquidity Requirement" were to develop favourably for pbb Group, this would result in a lower future liquidity requirement.

7.2 Liquidity Risk Development

pbb Group Exposure Development

The cumulative liquidity position (liquid assets plus projected net cash flows) determined as part of the liquidity risk measurement process as at 31 December 2016 amounted to € 6.8 billion for a 12-month horizon in the base scenario – a € 0.8 billion increase compared to the previous year (based on the same projection horizon). As at 31 December 2016, the cumulative liquidity position for a six-month horizon amounted to € 3.5 billion in the risk scenario (31 December 2015: € 4.0 billion).

pbb's liquidity ratio in accordance with the German Liquidity Ordinance was 1.6 as at 31 December 2016, thus exceeding the statutory minimum of 1.0.

Regulatory Liquidity Coverage Ratio (LCR) Requirements

A minimum Liquidity Coverage Ratio (LCR) of 70 % has applied to regulatory liquidity reports since 1 January 2016; this minimum value will rise to 100 % by 1 January 2018.

The figures determined (internally) for pbb Group were clearly above 100 % throughout the reporting period.

Refinancing Markets

As in previous years, central banks represented both the major influencing as well as the major supporting forces on the market. The US Federal Reserve (the Fed) bolstered the economic cycle by waiving any reductions of its balance sheet and postponing further interest rate increases until after the US presidential elections. After the Brexit referendum, the Bank of England (BoE) found itself constrained to reduce its key interest rate to a record low of 0.25 %. In March 2016, the European Central Bank (ECB) announced further key interest rates cuts as well as an expansion of its monthly securities purchase programme from € 60 million to € 80 million. ECB's deposit facility rate was reduced to -0.40 % in March 2016. Besides the increase of the securities purchase programme, ECB also decided to expand the programme by accepting corporate bonds going forward. The ECB measures produced further deterioration in the market environment for investors, which was characterized by a steady decline in investment offerings as well as further interest rate and risk premium cuts until well into the third quarter of 2016. Interest rates for medium- and long-term maturities increased considerably towards the end of the reporting period, translating into a slight widening of refinancing spreads for unsecured bank bonds and Pfandbriefe.

pbb was able to exploit this market environment. During the 2016 financial year, new long-term funding was raised in the amount of € 5.6 billion (2015: € 4.5 billion). The total amount comprised unsecured issues as well as Pfandbrief issues, both issued either in the form of benchmark issues or private placements. € 2.7 billion (2015: € 2.6 billion) was attributable to unsecured issues, € 1.2 billion (2015: € 1.2 billion) of which was in the form of benchmark issues and € 1.5 billion (2015: € 1.4 billion) in the form of private placements. € 2.9 billion (2015: € 1.9 billion) was attributable to Pfandbriefe issues, € 2.3 billion (2015: € 1.0 billion) of which was in the form of benchmark issues and € 0.6 billion (2015: € 0.9 billion) in the form of private placements. Most issues were placed as fixed-rate bonds. Unhedged interest rate exposures are usually hedged by swapping fixed against floating interest rates.

In addition to capital markets funding, pbb Group has extended its unsecured funding base through overnight and term deposits from retail investors. As at 31 December 2016, the volume of deposits taken via "pbb direkt" totalled € 3.5 billion (31 December 2015: € 2.6 billion).

On 23 November 2016, the European Commission published proposals suggesting amendments to the Capital Requirements Directive (CRD IV), the Capital Requirements Regulation (CRR), and the Bank Recovery and Resolution Directive (BRRD). pbb is currently unable to predict the timing of transposition into national law – let alone possible amendments brought about in the EU Parliament or the Council of Ministers. According to the European Commission's proposals, German banks could be obliged to split unsecured refinancing into two separate risk classes going forward.

Anticipated Liquidity Requirement

In addition to the forecast liquidity requirement for new business activities, the extent of future liquidity requirements also depends on numerous external factors:

- further developments in the context of the European financial crisis, and possible effects on the real economy
- future developments of haircuts applied to securities for repo funding on the market, and with central banks
- possible additional collateral requirements as a result of changing market parameters (such as interest rates and foreign exchange rates)
- developments in requirements for hedges
- changed requirements from rating agencies regarding the necessary over-collateralisation in the cover pools
- refinancing requirements of real estate investors.

Refinancing Risk

Please refer to the description of business risk in the section “Result of the Risk-Bearing Capacity Analysis” in chapter 4.2 “Economic Capital and Risk-Bearing Capacity” for details concerning funding risk.

Market Liquidity Risk

For financial instruments measured at fair value, quantitative details for a better assessment of market liquidity risk can be obtained from the presentation of the three levels of the fair value hierarchy in the notes of the Annual Report 2016 of pbb Group, Note 75 “Fair Values of Financial Instruments”. Generally, there is no intention to sell LaR holdings for liquidity management purposes, as liquidity for these holdings can mainly be generated by way of including them in the cover pool, using the funding opportunities provided by the central bank, or using them in repo transactions. Market liquidity risk is included in the internal risk management process as part of market risk.

8 Operational Risk

8.1 Operational Risk Management

Definition

pbb defines operational risk as follows: “the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events, including legal risk”. Furthermore, pbb recognizes the following risks within the operational risk category: behavioural risk, reputational risk, outsourcing risk, model risk, risks associated with information and communication technologies (ICT risks), as well as data quality risk.

Risk Strategy

The top priority of pbb Group’s operational risk management is to prevent operational risk events and to meet the defined risk appetite. Key cornerstones of this strategy are the early recognition, systematic recording and assessment of operational risk, taking measures for risk mitigation as well as implementing early management reporting.

Organisation

Within Risk Management & Control (RMC), the Operational Risk unit is responsible for coordinating consistent, Group-wide processes, tools and practices for the recording, assessment, monitoring, quantification and reporting of operational risks. Risk owners are responsible for the management of operational risk within pbb’s business divisions. For instance, the Legal department is responsible, among other things, for the management of legal risks and hence forms an integral part of risk management in this context. IT and Corporate Office/Compliance are responsible for managing ICT risks.

Risk Reporting, Risk Monitoring and Risk Management, Risk Mitigation

pbb Group actively manages operational risk based on a framework applied consistently throughout the Group with the aim of systematically identifying an overall risk profile, and to define, prioritise, and implement measures to mitigate risks. Risk management is applied to all business processes in an overall approach. In addition, operational risk is analysed and assessed explicitly as part of major decision-making processes (such as new product processes and outsourcing agreements). The operational risk management strategy is adopted by the Management Board on an annual basis as part of the overall risk strategy, after the Risk Committee voting. The risk strategy describes the risk management framework as well as pbb Group’s measures regarding operational risk.

In this context, pbb uses the following methods and procedures: recording – including the corresponding history - of loss events, Operational Risk Self-Assessment (ORSA) applied throughout the Group, as well as the analysis of theoretically possible scenarios. Furthermore, operational risk management comprises the quantification of risk by calculating the economic and regulatory capital requirements as well as training courses for employees designed to increase their risk awareness and enhance their competence to cope with situations associated with operational risk.

A structured and central reporting system is used to inform executive bodies at business divisional and Group level, the Risk Committee and other supervisory bodies concerning operational risk on a regular, timely and comprehensive basis. Reports are prepared on a monthly and quarterly basis (Group Risk Report), on a quarterly (KRI Report) or annual (Annual Risk Report) basis and are part of risk reporting to the entire Management Board, or the division heads. Risk reports comprise information on the current risk assessment at divisional level, on major loss events, hot topics regarding risk, performance of risk indicators, status of initiated measures as well as capital requirement developments.

Management of legal risks, as performed by the Legal department, is aimed at (a) the prevention of losses which could be incurred by business activities of pbb Group legally infeasible or insecure, and (b) the protection of pbb Group's integrity and reputation. In order to achieve this goal, the Legal department provides the entire pbb Group with a forward-looking, business-driven and comprehensive consultancy service.

The Legal department assists pbb Group's business divisions by monitoring developments in the relevant legislation and case law, and reviews the effects of such developments on new and existing business. The results are discussed with the responsible divisions and/or in the Legal and Regulatory Risk Committee. The Legal Policy describes the roles and responsibilities of the Legal department within pbb Group and serves as a guideline for employees in the Legal department.

In addition to the management activities described earlier, the Legal and Finance departments assess whether provisions for pending legal cases have to be recognised, and disclosed. Provisions for legal risks are recognised in accordance with IAS 37 for liabilities if (a) an obligation of pbb Group is probable, and (b) a reliable estimate can be made of the amount of the obligation. According to IAS 37.15, it is not clear whether there is a present obligation in rare cases. In such cases, pbb takes into account all available evidence, including the opinion of experts, to assess whether provisions have to be recognised at the reporting date.

Legal risks are taken into consideration in the operational risk management framework, and are an integral part of, inter alia, the Key Risk Indicator Report, the Operational Risk Self-Assessment, and an analysis of risk events.

Risk Quantification

Chapter 4.2 "Economic Capital and Risk-Bearing Capacity" provides details concerning the calculation as well as the quantification of economic capital for operational risk.

Chancen

Following the privatisation of pbb Group and the introduction of the new remuneration system, reliance on employees in key positions, as reported in previous years, declined. Furthermore, the harmonisation of IT systems led to reduced complexity within the IT landscape. Overall, pbb assesses its operational risk profile as stable.

8.2 Capital Requirements for Operational Risk

For complying with the capital requirements according to CRR, operational risks must be backed with own funds. pbb Group calculates the own funds required for operational risks based on the standardised approach according to Article 317 et seq. CRR.

For each business segment the relevant indicator is determined for the last three financial years according to Article 316 CRR. The related beta factors per business segment are shown in Article 317 CRR. The business segments of pbb Group include corporate and retail business, with corporate business making the most significant contribution to the relevant indicator. The capital requirement for operational risks results from the sum of the three-year average for the relevant indicator per segment, weighted with the applicable beta factor.

The regulatory capital requirement is determined once per year at year-end. As of 31 December 2016, it amounted to € 69 million (31 December 2015: € 64 million).

Operational Risk Profile of pbb Group

pbb Group suffered financial losses of € 0.3 million from operational risks (excluding legal risks) during 2016 (2015: € 2.8 million). Furthermore, pbb disclosed financial losses of € 3.0 million from legal risks resulting mainly from net additions to provisions (31 December 2015: € 8.2 million).

pbb suffered losses from operational risks which incurred mainly in the event categories “Execution, Delivery & Process Management” and “Clients, Products and Business Practices”. The internal Operational Risk Self-Assessment (ORSA) delivered similar results.

9 Outlook

With the Disclosure Report as of 31 December 2016, pbb Group has adopted the disclosure requirements in accordance with the currently applicable regulatory requirements of the CRD IV reform package for the implementation of Basel III in Europe, consisting of EU Regulation No. 575/2013 (Capital Requirements Regulation; CRR) and the EU Directive 2013/36 (Capital Requirements Directive, CRD IV). These rules, which entered into force in 2014, are already subject to a comprehensive revision by the Basel Committee on Banking Supervision (BCBC) and the European Union (EU). BCBS and the EU pursue the target of creating a single framework for Pillar 3. The new proposals are intended in particular to further enhance the comparability and consistency of disclosure information and enable market participants to gain a better assess of the capital and risk situation of institutions. The revised amendment by the Basel Committee is divided into three phases.

Basel Disclosure Requirements, Phase 1

At the end of January 2015, the Basel Committee on Banking Supervision publicised the final standard “Revised Pillar 3 Disclosure Requirements” (BCBS 309) within the framework of the first phase of the review of of Pillar 3 disclosure requirements. The new proposals include both a greater standardisation of requirements and new content, e. g. information on changes of risk-weighted assets including their drivers and reconciliation between accounting and regulatory information.

On 14 December 2016, the European Banking Supervisory Authority (EBA) presented its final guidelines on the implementation of the Phase 1 regulations in the EU, the “Fianl Report – Guidelines on disclosure requirements under Part Eight of Regulation (EU) No 575/2013” (EBA/GL/2016/11). The EBA-Guidelines provide a bridge to the CRR for implementation in Europe until it is revised and formalised in European law. The Phase 1 regulations are supplemented by the disclosure requirements published in March 2017, the technical regulation standard for the disclosure of encumbered and unencumbered assets: „Draft Regulatory Technical Standards on disclosure of encumbered and unencumbered assets under Article 443 of the CRR“ (EBA/RTS/2017/03) as well as the guidelines for disclosing qualitative and quantitative information on the liquidity risk: “Draft Guidelines on LCR disclosure to complement the disclosure of liquidity risk management under Article 435 of Regulation (EU) No 575/2013” (EBA/GL/2017/01).

The EBA guidelines for phase 1 are to be applied for the first time for the reporting period 2017. They initially apply to all institutes classified as Global Systemically Important Institutions (G-SIIs), as well as to Other Systemically Important Institutions (O-SIIs). Moreover, it is also the responsibility of the relevant banking supervision to demand the disclosure requirements of other credit institutions. pbb is directly supervised by the European Central Bank (ECB) and will implement the new requirements voluntarily for the first time as of 31 December 2017.

Basel Disclosure Requirements, Phase 2

In March 2016, the Basel Committee on Banking Supervision publicised additional proposals on a revision of disclosure requirements (Phase 2). Document “Pillar 3 disclosure requirements – consolidated and enhanced framework“ (BCBS 356) was submitted to banks for consultation until 10 June 2016. Besides more new disclosure requirements this second phase includes proposals for additions to the existing Pillar III Framework taking into account the disclosure requirements which already exist or which have been adopted only recently. As a result, these proposals will lead to an extension of the existing disclosures and tables. The final Basel document is expected in 2017.

Basel Disclosure Requirements, Phase 3

A draft of the Basel Committee for Phase 3 is expected in 2017.

Revision of CRR and CRD IV

On 23 November 2016, the European Commission published proposals to revise EU Regulation no. 575/2013 (CRR) and the EU Directive 2013/36 (CRD IV) as well as BRRD. According to this, the disclosure of Pillar 3 in the EU should be proportionate to the size and capital market orientation of the institutes. For large institutes this would results in significantly expanded disclosures, which would also partly to be published during the year. The proposals of the EU Commission are initially discussed in the relevant working groups of the Council and the European Economic and Monetary Affairs Committee (ECON). Whether, when and to what extent these proposals are ultimately implemented, can not be reliably estimated.

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10 Notes

Main Features of Capital Instruments

According to Article 437 (1), Point (b) CRR, the following Tables show the main features of Common Equity Tier 1 (CET1) capital, additional Tier 1 (AT1) capital as well as Tier 2 (T2) capital instruments issued by pbb Group.

	Capital instruments main features template	Common Equity Tier 1 capital 01	Additional Tier 1 capital 02	Tier 2 capital 03	Tier 2 capital 04	Tier 2 capital 05
1	Issuer	Deutsche Pfandbriefbank AG	Hypo Real Estate International Trust I	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG
2	Unique identifier (eg CUSIP, ISIN or Bloomberg identifier for private placement)	n/a	XS0303478118	HI_SSD_0000079874000	HI_SSD_0000079884000	HI_SSD_00000890140_1
3	Governing law(s) of the instrument	german	USA	german	german	german
	Regulatory treatment					
4	Transitional CRR rules	CET1	AT 1	Tier 2	Tier 2	Tier 2
5	Post-transitional CRR rules	CET1	not eligible	Tier 2	Tier 2	Tier 2
6	Chargeable on level	pbb group	pbb group	pbb group	pbb group	pbb group
7	Instrument type (types to be specified by each jurisdiction)	Shares	Preferred Securities	Borrowers' note loan	Borrowers' note loan	Registered bond
8	Amount recognised in regulatory capital (in Euro million)	380	210	0.1	0.2	0.5
9	Nominal amount of instrument	380	350	10	10	15
9a	Issue price	n/a	100%	100%	100%	100%
9b	Redemption price	n/a	100% or liquidation proceeds + inerest	100%	100%	100%
10	Accounting classification	Capital stock	Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost
11	Original date of issuance	varying	14.06.2007	10.01.2007	02.02.2007	27.02.2006
12	Perpetual of dated	indefinite	indefinite	with expiry date	with expiry date	with expiry date
13	Original maturity date	no maturity	no maturity	10.01.2017	02.02.2017	27.02.2017
14	Issuer call subject to prior supervisory approval	no	yes	no	no	no
15	Option call date, contingent call dates an redemption amount	n/a	14.06.2017	n/a	n/a	n/a
16	Subsequent call dates, if applicable	n/a	annually	n/a	n/a	n/a
	Coupons / dividends					
17	Fixes or floating dividend/coupon	n/a	actually fix, then variable	fix	fix	fix
18	Coupon rate and any related index	n/a	5.864%	4.795%	4.810%	4.245%
19	Existence of a dividend stopper	No	n/a	No	No	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	fully discretionary	partly discretionary	obligatory	obligatory	obligatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	fully discretionary	partly discretionary	obligatory	obligatory	obligatory
21	Existence of step up or other incentive to redeem	n/a	yes	no	no	no
22	Noncumulative or cumulative	n/a	not cumulative	n/a	n/a	n/a
23	Convertible or non-convertible	not convertible	convertible	not convertible	not convertible	not convertible
24	If convertible, conversion trigger(s)	n/a	Threat to continued existence FMSA / SRB legal approach	n/a	n/a	n/a
25	If convertible, fully or partially	n/a	whole or partial	n/a	n/a	n/a
26	If convertible, conversion rate	n/a	n/a	n/a	n/a	n/a
27	If convertible,mandatory or optional conversion	n/a	compulsory	n/a	n/a	n/a
28	If convertible, specify instrument type converible into	n/a	CET1	n/a	n/a	n/a
29	If convertible, specify issuer of instrument it converts into	n/a	Deutsche Pfandbriefbank AG	n/a	n/a	n/a
30	Write-down features	n/a	no	no	no	no
31	If write-down, write-down trigger(s)	n/a	Threat to continued existence FMSA / SRB legal approach	n/a	n/a	n/a
32	If write-down, full or partial	n/a	n/a	n/a	n/a	n/a
33	If write-down, permanent or temporary	n/a	n/a	n/a	n/a	n/a
34	If temporaty write-down, description of write-up mechanism	n/a	n/a	n/a	n/a	n/a
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	-	Preferred Securities	Preferred Securities	Preferred Securities	Preferred Securities
36	Non-compliant transitioned features	no	no	no	no	no
37	If yes, specify non-compliant features	n/a	n/a	n/a	n/a	n/a

1) FMSA: Finacial Market Stabilisation Authority, national resolution authority in Germany / SRB: Single Resolution Board, European resolution authority

Tier 2 capital 06	Tier 2 (T2) capital 07	Tier 2 capital 08	Tier 2 capital 09	Tier 2 capital 10	Tier 2 capital 11	Tier 2 capital 12
Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG
HI_SSD_0000089004000	HG_SSD_00770144840_1	HG_SSD_00770144840_1	HG_SSD_00770144840_1	HG_SSD_00770144840_1	HG_SSD_00770144840_1	HG_SSD_0088376244000
german	german	german	german	german	german	german
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
pbb group	pbb group	pbb group	pbb group	pbb group	pbb group	pbb group
Registered bond	Registered bond	Registered bond	Registered bond	Registered bond	Registered bond	Registered bond
2	3	4	0.3	2	2	0.3
10	10	15	1	6	8	1
100%	100%	100%	100%	100%	100%	100%
100%	100%	100%	100%	100%	100%	100%
Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost
12.01.2006	06.05.2008	06.05.2008	06.05.2008	06.05.2008	06.05.2008	07.05.2008
with expiry date	with expiry date	with expiry date	with expiry date	with expiry date	with expiry date	with expiry date
12.01.2018	07.05.2018	07.05.2018	07.05.2018	07.05.2018	07.05.2018	07.05.2018
no	no	no	no	no	no	no
n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a
fix	variable	variable	variable	variable	variable	variable
4.050%	30J.-€-CMS, Floor 7,615%	30J.-€-CMS, Floor 7,615%	30J.-€-CMS, Floor 7,615%	30J.-€-CMS, Floor 7,615%	30J.-€-CMS, Floor 7,615%	125% 10J-€-CMS, Floor 5%
No	No	No	No	No	No	No
obligatory	obligatory	obligatory	obligatory	obligatory	obligatory	obligatory
obligatory	obligatory	obligatory	obligatory	obligatory	obligatory	obligatory
no	no	no	no	no	no	no
n/a	n/a	n/a	n/a	n/a	n/a	n/a
convertible	convertible	convertible	convertible	convertible	convertible	convertible
Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach
whole or partial	whole or partial	whole or partial	whole or partial	whole or partial	whole or partial	whole or partial
n/a	n/a	n/a	n/a	n/a	n/a	n/a
compulsory	compulsory	compulsory	compulsory	compulsory	compulsory	compulsory
CET1	CET1	CET1	CET1	CET1	CET1	CET1
Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG
no	no	no	no	no	no	no
Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach
n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a
Preferred Securities	Preferred Securities	Preferred Securities	Preferred Securities	Preferred Securities	Preferred Securities	Preferred Securities
no	no	no	no	no	no	no
n/a	n/a	n/a	n/a	n/a	n/a	n/a

Tier 2 capital 13	Tier 2 capital 14	Tier 2 capital 15	Tier 2 capital 16	Tier 2 capital 17	Tier 2 capital 18	Tier 2 capital 19
Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG
HG_SSD_00770144840_1	XS0362627969	HG_SSD_0088383764000	DE000A0PND49	HG_SSD_0088384004000	HG_SSD_0088384004000	HG_SSD_0088384004000
german	german	german	german	german	german	german
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
pbb group	pbb group	pbb group	pbb group	pbb group	pbb group	pbb group
Registered bond	Bearer bond	Borrowers' note	Bearer bond	Registered bond	Registered bond	Registered bond
5	3	3	7	1	3	9
20	10	10	25	5	10	30
100%	100%	100%	100%	100%	100%	100%
100%	100%	100%	100%	100%	100%	100%
Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost
06.05.2008	08.05.2008	02.06.2008	06.06.2008	06.06.2008	06.06.2008	06.06.2008
with expiry date	with expiry date	with expiry date	with expiry date	with expiry date	with expiry date	with expiry date
07.05.2018	08.05.2018	01.06.2018	06.06.2018	06.06.2018	06.06.2018	06.06.2018
no	no	no	no	no	no	no
n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a
variable	fix	fix	fix	fix	fix	fix
30J.-€-CMS, Floor 7,615%	7.496%	7.515%	8.000%	8.000%	8.000%	8.000%
No	No	No	No	No	No	No
obligatory	obligatory	obligatory	obligatory	obligatory	obligatory	obligatory
obligatory	obligatory	obligatory	obligatory	obligatory	obligatory	obligatory
no	no	no	no	no	no	no
n/a	n/a	n/a	n/a	n/a	n/a	n/a
convertible	convertible	convertible	convertible	convertible	convertible	convertible
Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach
whole or partial	whole or partial	whole or partial	whole or partial	whole or partial	whole or partial	whole or partial
n/a	n/a	n/a	n/a	n/a	n/a	n/a
compulsory	compulsory	compulsory	compulsory	compulsory	compulsory	compulsory
CET1	CET1	CET1	CET1	CET1	CET1	CET1
Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG
no	no	no	no	no	no	no
Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach
n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a
Preferred Securities	Preferred Securities	Preferred Securities	Preferred Securities	Preferred Securities	Preferred Securities	Preferred Securities
no	no	no	no	no	no	no
n/a	n/a	n/a	n/a	n/a	n/a	n/a

Tier 2 capital 20	Tier 2 capital 21	Tier 2 capital 22	Tier 2 capital 23	Tier 2 capital 24	Tier 2 capital 25	Tier 2 capital 26
Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG
HG_SSD_0088384004000	HG_SSD_0088384004000	HG_SSD_0088384004000	HG_SSD_0088384004000	HI_SSD_00000890340_1	HI_SSD_00000890540_1	XS0118953529
german	german	german	german	german	german	german
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
pbb group	pbb group	pbb group	pbb group	pbb group	pbb group	pbb group
Registered bond	Registered bond	Registered bond	Registered bond	Registered bond	Registered bond	Bearer bond
3	1	3	1	2	1	11
10	5	10	5	5	1	15
100%	100%	100%	100%	100%	100%	100%
100%	100%	100%	100%	100%	100%	100%
Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost
06.06.2008	06.06.2008	06.06.2008	06.06.2008	17.03.2006	08.08.2006	27.10.2000
with expiry date	with expiry date	with expiry date	with expiry date	with expiry date	with expiry date	with expiry date
06.06.2018	06.06.2018	06.06.2018	06.06.2018	18.03.2019	07.08.2020	27.10.2020
no	no	no	no	no	no	no
n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a
fix	fix	fix	fix	fix	fix	variable
8.000%	8.000%	8.000%	8.000%	4.520%	4.900%	10J.-€CMS, with various cap and floor conditions
No	No	No	No	No	No	No
obligatory	obligatory	obligatory	obligatory	obligatory	obligatory	obligatory
obligatory	obligatory	obligatory	obligatory	obligatory	obligatory	obligatory
no	no	no	no	no	no	no
n/a	n/a	n/a	n/a	n/a	n/a	n/a
convertible	convertible	convertible	convertible	convertible	convertible	convertible
Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach
whole or partial	whole or partial	whole or partial	whole or partial	whole or partial	whole or partial	whole or partial
n/a	n/a	n/a	n/a	n/a	n/a	n/a
compulsory	compulsory	compulsory	compulsory	compulsory	compulsory	compulsory
CET1	CET1	CET1	CET1	CET1	CET1	CET1
Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG
no	no	no	no	no	no	no
Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach
n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a
Preferred Securities	Preferred Securities	Preferred Securities	Preferred Securities	Preferred Securities	Preferred Securities	Preferred Securities
no	no	no	no	no	no	no
n/a	n/a	n/a	n/a	n/a	n/a	n/a

Tier 2 capital **27**	**Tier 2 capital** **28**	**Tier 2 capital** **29**	**Tier 2 capital** **30**	**Tier 2 capital** **31**	**Tier 2 capital** **32**	**Tier 2 capital** **33**
Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG
HI_SSD_0000079684000	HI_SSD00000890240_1	DE000A0JBST9	HI_SSD_0000079814000	HG_SSD_0100087994000	HG_SSD_0100088004000	DE0008053976
german	german	german	german	german	german	german
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
pbb group	pbb group	pbb group	pbb group	pbb group	pbb group	pbb group
Borrowers' note	Registered bond	Bearer bond	Borrowers' note	Borrowers' note	Borrowers' note	Bearer bond
8	8	6	1	4	6	10
10	10	7	1	4	6	10
100%	100%	100%	100%	100%	100%	100%
100%	100%	100%	100%	100%	100%	100%
Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost
27.01.2006	14.03.2006	20.03.2006	04.05.2006	07.03.2002	07.03.2002	06.03.2002
with expiry date	with expiry date	with expiry date	with expiry date	with expiry date	with expiry date	with expiry date
27.01.2021	15.03.2021	28.03.2021	04.05.2021	07.03.2022	07.03.2022	18.03.2022
yes	no	no	no	no	no	no
27.01.2016	n/a	n/a	n/a	29.02.2012	29.02.2012	18.03.2022
n/a	n/a	n/a	n/a	n/a	n/a	n/a
fix	fix	fix	fix	fix	fix	fix
4.350%	4.570%	4.560%	4.910%	6.550%	6.550%	6.570%
No	No	No	No	No	No	No
obligatory	obligatory	obligatory	obligatory	obligatory	obligatory	obligatory
obligatory	obligatory	obligatory	obligatory	obligatory	obligatory	obligatory
no	no	no	no	no	no	no
n/a	n/a	n/a	n/a	n/a	n/a	n/a
convertible	convertible	convertible	convertible	convertible	convertible	convertible
Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach
whole or partial	whole or partial	whole or partial	whole or partial	whole or partial	whole or partial	whole or partial
n/a	n/a	n/a	n/a	n/a	n/a	n/a
compulsory	compulsory	compulsory	compulsory	compulsory	compulsory	compulsory
CET1	CET1	CET1	CET1	CET1	CET1	CET1
Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG
no	no	no	no	no	no	no
Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach
n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a
Preferred Securities	Preferred Securities	Preferred Securities	Preferred Securities	Preferred Securities	Preferred Securities	Preferred Securities
no	no	no	no	no	no	no
n/a	n/a	n/a	n/a	n/a	n/a	n/a

Tier 2 capital 34	Tier 2 capital 35	Tier 2 capital 36	Tier 2 capital 37	Tier 2 capital 38	Tier 2 capital 39	Tier 2 capital 40
Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG
DE0008053331	DE000A0SM1B5	HG_SSD_0100214754000	HG_SSD_0100215214000	HG_SSD_0088286364000	NP000940	HI_SSD_0000079734000
german	german	german	german	german	german	german
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
pbb group	pbb group	pbb group	pbb group	pbb group	pbb group	pbb group
Bearer bond	Bearer bond	Borrowers' note	Borrowers' note	Borrowers' note	Borrowers' note	Borrowers' note
10	10	5	5	10	2	3
10	10	5	5	10	2	3
100%	100%	100%	100%	100%	100%	100%
100%	100%	100%	100%	100%	100%	100%
Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost
19.03.2003	25.04.2008	05.09.2003	10.12.2003	18.11.2005	01.02.2016	09.03.2006
with expiry date	with expiry date	with expiry date	with expiry date	with expiry date	with expiry date	with expiry date
24.03.2023	02.05.2023	05.09.2023	05.09.2023	18.11.2025	29.01.2026	09.03.2026
yes	no	yes	yes	yes	yes	no
24.03.2013	n/a	n/a	n/a	18.11.2015	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a
actually fix, previously vaiable	fix	fix	fix	fix	fix	fix
6.750%	8.060%	6.330%	6.330%	4.650%	3.950%	4.530%
No	No	No	No	No	No	No
obligatory	obligatory	obligatory	obligatory	obligatory	obligatory	obligatory
obligatory	obligatory	obligatory	obligatory	obligatory	obligatory	obligatory
no	no	no	no	no	no	no
n/a	n/a	n/a	n/a	n/a	n/a	n/a
convertible	convertible	convertible	convertible	convertible	convertible	convertible
Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach
whole or partial	whole or partial	whole or partial	whole or partial	whole or partial	whole or partial	whole or partial
n/a	n/a	n/a	n/a	n/a	n/a	n/a
compulsory	compulsory	compulsory	compulsory	compulsory	compulsory	compulsory
CET1	CET1	CET1	CET1	CET1	CET1	CET1
Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG
no	no	no	no	no	no	no
Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach
n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a
Preferred Securities	Preferred Securities	Preferred Securities	Preferred Securities	Preferred Securities	Preferred Securities	Preferred Securities
no	no	no	no	no	no	no
n/a	n/a	n/a	n/a	n/a	n/a	n/a

Tier 2 capital 41	Tier 2 capital 42	Tier 2 capital 43	Tier 2 capital 44	Tier 2 capital 45	Tier 2 capital 46	Tier 2 capital 47
Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG
DE0007025140	HI_SSD_0000089044000	NP000982	HI_SSD_0000079854000	DE000A13SWL1	DE000A2AAV39	306194DW
german	german	german	german	deutsch	german	german
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	not eligible
pbb group	pbb group	pbb group	pbb group	pbb group	pbb group	pbb group
Bearer bond	Registered bond	Borrowers' note	Borrowers' note	Bearer bond	Bearer bond	Loan
7	5	5	5	34	5	90
10	5	5	5	35	5	90
100%	100%	100%	100%	96%	99.22%	100%
100%	100%	100%	100%	100%	100%	100%
Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost	Liabilities carried forward at cost
13.03.2001	04.05.2006	18.05.2016	28.08.2006	31.08.2016	02.11.2016	21.03.2007
with expiry date	with expiry date	with expiry date	with expiry date	with expiry date	with expiry date	with expiry date
13.03.2026	04.05.2026	18.05.2026	28.08.2026	31.08.2026	03.11.2031	21.03.2032
no	yes	yes	yes	yes	yes	yes
n/a	04.05.2016	n/a	28.08.2016	n/a	n/a	21.03.2017
n/a	n/a	n/a	n/a	n/a	n/a	every 3 months
fix	fix	fix	fix	fix	fix	actually fix, then variable
6.550%	5.125%	3.880%	5.040%	3.250%	4.120%	5.099%
No	No	No	No	No	No	No
obligatory	obligatory	obligatory	obligatory	obligatory	obligatory	obligatory
obligatory	obligatory	obligatory	obligatory	obligatory	obligatory	obligatory
no	no	no	no	no	no	yes
n/a	n/a	n/a	n/a	n/a	n/a	n/a
convertible	convertible	convertible	convertible	convertible	convertible	convertible
Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach
whole or partial	whole or partial	whole or partial	whole or partial	whole or partial	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a
compulsory	compulsory	compulsory	compulsory	compulsory	compulsory	compulsory
CET1	CET1	CET1	CET1	CET1	CET1	CET1
Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG	Deutsche Pfandbriefbank AG
no	no	no	no	no	no	no
Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach	Threat to continued existence FMSA / SRB legal approach
n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a
Preferred Securities	Preferred Securities	Preferred Securities	Preferred Securities	Preferred Securities	Preferred Securities	Preferred Securities
no	no	no	no	no	no	no
n/a	n/a	n/a	n/a	n/a	n/a	n/a

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