Disclosure Report

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

As of 30 June 2018

Contents

Note:

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

Because there is still a certain amount of interpretation uncertainty regarding the CRR/CRD 4 regulations, and because some of the mandatory technical regulation standards referring to these regulations are also not yet available in final form, we will continuously adjust our assumptions and models in line with the development of our own understanding as well as the understanding of industry and the interpretations of the rules. Accordingly, our CRR/CRD 4 parameters may differ from our previous expectations. The assumptions and assessments of our competitors regarding the introduction may also change, so that our CRR/CRD 4 parameters are not comparable with similarly defined parameters of our competitors.

1 Introduction

With the present Disclosure Report Deutsche Pfandbriefbank AG (pbb) implements the disclosure requirements under part 8 of Regulation (EU) No. 575/2013 (Capital Requirements Regulation; CRR) for pbb and its downstream affiliates (pbb Group) as of 30 June 2018. 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 thus responsible for regulatory disclosure requirements.

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”). In order to comply with these disclosure requirements, pbb applies the disclosure formats of the EBA/GL/2016/11 guidelines issued by the European Banking Authority (EBA) as of 31 December 2017 which relate to precise details of the disclosure requirements in accordance with Part 8 of the CRR and Guidelines EBA/GL/2017/01 Disclosure of the liquidity coverage ratio to supplement the disclosure of liquidity risk management in accordance with Article 435 CRR on a voluntary basis.

According to Article 433 CRR institutions must verify, on the basis of the relevant features of their business, whether it is necessary for them to disclose the relevant information more than once a year in full or in part. With regard to assessing the need for more frequent disclosure, pbb follows the EBA/GL/2014/14 in conjunction with EBA/GL/2016/11 of the EBA. The semi-annual disclosure report as of 30 June 2018 will be published in accordance with these guidelines. The pbb Group meets the criterion of “the consolidated assets of the institution exceed € 30 billion” as per point 18 letter b of the aforementioned guidelines, and it is therefore subject to a semi-annual disclosure, on 30 June of any financial year (condensed) and 31 December of any financial year (complete). The pbb Group’s IFRS consolidated assets as of 30 June 2017 amounted to € 58 billion (31 December 2017: € 58 billion).

The present disclosure report contains information about:

- Own funds and capital ratios
- Risk weighted exposure values and own funds requirements
- Leverage ratio
- Risk position values in the advanced IRB approach for counterparty default risk
- Liquidity coverage ratio.

According to Article 13, (1) CRR, the Disclosure Report is based on the consolidated situation of the pbb Group. This Report is based on the regulatory scope of consolidation according to Articles 18 to 24 CRR. There are no significant subsidiaries as defined in Article 13 (1) CRR. According to Article 13 CRR, pbb as the parent company of the Group is not required to provide a disclosure at institution level.

In the first half of 2018, the subsidiary Immo Immobilien Management Beteiligungsgesellschaft mbH, Munich, which was previously not consolidated due to its subordinate importance, was included in the regulatory scope of consolidation for the first time. So far, the pbb group had the exemption of Article 19 (1) CRR in conjunction with Section 31 (3) KWG. The Immo Immobilien Management GmbH & Co. KG, Munich, which has been consolidated so far, merged in May 2018 to Immo Immobilien Management Beteiligungsgesellschaft mbH. Immo Invest Real Estate GmbH, Munich is still part of the regulatory scope of consolidation. This company was classified as a financial entity as of 30 June 2018, due to its scope of operations.

According to Article 434 (1) CRR in conjunction with point 39 of the EBA/GL2016/11, the Disclosure Report is publicized as an independent report on the website of pbb (www.pfandbriefbank.com) under Investors / Mandatory Publications. Deutsche Bundesbank and Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) are informed of the time and the medium of the publication, as well as the European Central Bank (ECB), since. Deutsche Pfandbriefbank AG is directly supervised by the ECB.

Disclosure information in accordance with part 8 of the CRR

This condensed report contains the information required under point 25 of Guidelines EBA/GL/2014/14 in conjunction with EBA/GL/2016/11 information to be disclosed in accordance with Part 8 of the CRR, to the extent that such information has not in individual cases already been published in other documents of pbb. The following table provides an overview of the separate documents of pbb (and also the specific points in such documents) in which specified publications in accordance with part 8 of the CRR or corresponding additional information is to be found, if such information is not included in the present Disclosure Report. In addition, the corresponding chapters of the Disclosure Report refer to the separate positions.

Figure 1: Major disclosure information in separate documents

Disclosure issue according to part 8 of the CRR	Designation of the separate document	Web link
Article 435 CRR: Liquidity coverage ratio	Additional information on liquidity risk: Interim Report 2018 of pbb Group, Risk and Opportunity Report, section "Liquidity and Funding Risk", page 24	www.pfandbriefbank.com (under Investors / Financial Reports)
Article 437 CRR: Own funds	Additional information on the balance sheet equity and the classification / measurement of financial instruments according to IFRS 9 and the initial application of IFRS 9 Interim Report 2018 of pbb Group, Note 26 "Equity", page 68 and the chapters "Changes in equity" and "Statement of Cash flows (condensed)", page 37 Note 2 „Consistency“ (Initial Application of IFRS 9), page 39 et seq.	www.pfandbriefbank.com (under Investors / Financial Reports)
Article 438 CRR: Capital requirements	-	-
Article 451 CRR: Leverage	-	-
Article 452 CRR: Use of the IRB approach to credit risk	Additional information on the definition of counterparty default risk types: Disclosure Report 2017 of pbb Group, section 5.1 "Management of credit risk (including counterparty credit risk)", page 62 et seq.	www.pfandbriefbank.com (under Investors / Mandatory Publications / Disclosure Report)
	Additional information about the underlying IRBA coverage rating systems: Disclosure Report 2017 of the pbb Group, chapter 5.5 "IRB approach", page 91 et seq.	www.pfandbriefbank.com (under Investors / Mandatory Publications / Disclosure Report)

2 Own funds and capital ratios

Own funds

The regulatory own funds which are relevant for compliance with the regulatory capital requirements and thus for the capital-backing for the risk types credit risk (including counterparty credit risk), market risk, operational risk, settlement risk and CVA risk are determined in accordance with the regulations of part 2 of the CRR. Regulatory own funds consist of common equity tier 1 (CET1) capital, additional tier 1 (AT1) capital as well as tier 2 (T2) capital.

For calculating its own funds, the pbb Group takes account of the requirements of prudent valuation in accordance with Article 105 CRR in conjunction with Article 34 CRR. The pbb Group uses the simplified approach in accordance with Article 4 et seq. of the Delegated Regulation (EU) 2016/101. Institutions may use this approach if the sum of the absolute value of the assets and liabilities measured at fair value in accordance with Article 4 (1) minus the offsetting options under Article 4 (2) of the EU Regulation is below the threshold of € 15 billion. For the pbb Group, this value amounted to € 6.2 billion as of the reporting date (31 December 2017: € 5.2 billion).

The remainder of this chapter describes the own fund information in accordance with Article 437 CRR in conjunction with the Implementing Regulation (EU) Nr. 1423/2013 for the pbb Group on a consolidated basis.

In accordance with Article 437 (1) letter d CRR the following table for the structure of own funds shows the type and amount of the elements of own funds for the pbb Group as of the reporting date 30 June 2018 in line with regulations of IFRS 9 (31 December 2017: IAS39). They are calculated in accordance with the requirements of CRR. The amounts which are shown are based on the IFRS consolidated financial statements of the pbb Group, taking into account regulatory adjustments. pbb is the direct or indirect main shareholder of the shareholdings included in the regulatory consolidation group.

Table 1: Structure of own funds (shortened)

All figures in € million, unless otherwise stated

No.	Capital instruments pbb Group	30.06.2018 (IFRS 9)	31.12.2017 (IAS 39)
6	Common Equity Tier 1 (CET1) capital before regulatory adjustments	2,807	2,713
28	Total regulatory adjustments to Common equity Tier 1 (CET1)	-146	-144
29	**Common Equity Tier 1 (CET1) capital**	**2,661**	**2,569**
36	Additional Tier 1 (AT1) capital before regulatory adjustments	298	-
43	Total regulatory adjustments to Additional Tier 1 (AT1) capital	-	-
44	**Additional Tier 1 (AT1) capital**	**298**	**0**
45	**Tier 1 capital (T1 = CET1 + AT1)**	**2,959**	**2,569**
51	Tier 2 (T2) capital before regulatory adjustments	653	675
57	Total regulatory adjustments to Tier 2 (T2) capital	-	-6
58	**Tier 2 (T2) capital**	**653**	**670**
59	**Total capital (TC = T1 + T2)**	**3,612**	**3,239**
60	Total risk weighted assets (RWA)	13,744	14,515
	Capital ratios		
61	Common Tier 1 equity ratio (as a percentage of risk exposure amount)	19.4%	17.7%
62	Tier 1 capital ratio (as a percentage of risk exposure amount)	21.5%	17.7%
63	Total capital ratio (as a percentage of risk exposure amount)	26.3%	22.3%

The basis for the own funds listed in the table is the COREP reporting of own funds and own funds requirements of the pbb group as at 30 June 2018 (in agreement with the ECB, including the unappropriated retained earnings from 1 January 2018 to 31 March 2018 less the maximum, prospective dividend according to ECB methodology).

Tier 1 capital

The regulatory tier 1 capital in accordance with Article 25 CRR consists of common equity tier 1 (CET1) capital and additional tier 1 (AT1) capital. Common equity tier 1 capital consists of equity shown in the IFRS financial statements amounting to € 3,195 million (31 December 2017: €2,858 million) adjusted by regulatory adjustments. The composition of the balance sheet equity according to IFRS is described in the interims report of the pbb Group as of 30 June 2018.

Common equity tier 1 capital

As of 30 June 2018, the conditions for common equity tier 1 capital according to Articles 26 to 50 CRR were applicable.

The subscribed capital (share capital) of pbb amounted to approx. € 380 million as of 30 June 2018 (unchanged), and consisted of 134,475,308 no-par-value ordinary bearer shares with a computed share in the subscribed capital (share capital) of € 2.83 per share.

In addition to the subscribed capital (share capital), the common equity tier 1 (CET1) capital consists of additional paid-in capital of € 1,637 million, retained earnings of € 760 million and accumulated other comprehensive income of € 21 million. By contrast, consolidated net income of EUR 99 million from 1 January 2018 to 30 June 2018 is not fully included in CET1. As described above, only the interim results for the first quarter of 2018 less a maximum, prospective dividend are taken into account in accordance with the ECB methodology. Common equity tier 1 capital before regulatory adjustments totalled € 2,807 million.

Of this amount, various items totalling EUR 146 million prescribed by the CRR are deducted, in addition to the valuation adjustments for a prudent valuation, in particular for the impairment loss on the provision for impairment losses compared to the expected loss, for intangible assets, for deferred tax assets that depend on future profitability (excluding those resulting from unwinding) and less collateral for the deposit guarantee fund.

Overall, the common equity tier 1 capital (CET1) after regulatory adjustments of pbb Group was € 2,661 million as of 30 June 2018 (31 December 2017: € 2,569 million).

Additional tier 1 capital

The core capital of pbb Group consists of common equity tier 1 (CET1) and additional tier 1 (AT1) capital, for which the provisions of Articles 52 to 54 CRR are fulfilled.

The additional tier 1 capital consists of subordinated bearer bonds with a total nominal value of € 300 million and an initial interest rate of 5,750% p.a., issued by pbb in April 2018 with an unlimited maturity and without redemption incentives. As the pbb Group had no AT1 capital as of 31 December 2017, pbb complements the regulatory capital of pbb Group with additional tier 1 capital and at the same time strengthens its leverage ratio, which is slightly above 5% (see chapter 4 "Leverage ratio"). The issue also increases both the tier 1 capital ratio and the total capital ratio by around 2 percentage points.

AT1 capital qualifies as equity because there is no obligation to repay, or to make debt servicing payments on an ongoing basis. It is reported under the balance sheet item "Additional equity instruments".

Table 2: Additional tier 1 capital (AT1) – Capital instruments

No.[1)]	Issuer	Year of issue	Type	Nominal amount in € million	Interest rate in %	Maturity	First call date Issuer
2	Deutsche Pfandbriefbank AG	2018	Bearer bond	300	5.750%	perpetual	2023
Total				**300**			

1) The sequential numbering corresponds to the consecutive numbering of the capital instruments in the appendix "Disclosure Report (30.06.2018) - Main features of capital instruments".

The bonds have no final maturity, but they can be terminated by pbb for the first time on 28 April 2023 and thereafter every five years. They can also be terminated for regulatory and tax reasons, subject to the prior approval of the responsible supervisory authority. A right of termination of the creditors does not exist.

The bond conditions also provide for a temporary write-down of the nominal amount in the event that the common equity tier 1 ratio (CET1 ratio) falls below the threshold of 7.0%. The threshold of 7.0% relates to the pbb Group in accordance with IFRS or, in addition, to the pbb single-entity level pursuant to HGB, insofar pbb should no longer be exempted from determining the regulatory ratios on an individual-institution basis.

The bonds constitute direct, unsecured, subordinated obligations of the issuer, with an equal ranking among each other but subordinated to liabilities of the issuer from common equity tier 1 instruments. In the case of liquidation measures relating to the issuer and in the event of the liquidation or insolvency of the issuer, the liabilities arising out of the bonds will be serviced only after the tier 2 capital has been repaid.

With this issue, the additional tier 1 (AT1) capital of pbb Group amounts to € 298 million (nominal value € 300 million less € 2 million in issue costs). Regulatory adjustments to AT1 capital are not made.

The main features pursuant to Article 437 (1) letter (b) CRR of the additional tier 1 capital issued by pbb are set out in the Annex "Disclosure Report (30.06.2018) - Key Features of the Capital Instruments". The attachment is published in addition to the disclosure report on the pbb website under Investors / Mandatory Publications.

Tier 2 capital

The tier 2 capital (T2) of the pbb Group consists of long-term subordinated liabilities, for which the requirements of Article 63 CRR are met. Regulatory adjustments to the supplementary capital are not made.

Subordinated liabilities are composed of the following tabulated issues (sorted by maturity). The key features pursuant to Article 437 (1) letter (b) CRR of these supplementary capital instruments are also set out in the Annex "Disclosure Report (30.06.2018) - Key Features of the Capital Instruments".

Table 3: Tier 2 (T2) capital – Capital instruments

No. [1]	Issuer	Year of issue	Type	Nominal amount in € million	Interest rate in %	Maturity
3	Deutsche Pfandbriefbank AG	2006	Registered Bond	5	4.520	2019
4	Deutsche Pfandbriefbank AG	2006	Registered Bond	1	4.900	2020
5	Deutsche Pfandbriefbank AG	2000	Bearer bond	15	variable	2020
6	Deutsche Pfandbriefbank AG	2006	Borrowers' note loan	10	4.350	2021
7	Deutsche Pfandbriefbank AG	2006	Registered Bond	10	4.570	2021
8	Deutsche Pfandbriefbank AG	2006	Bearer bond	7	4.560	2021
9	Deutsche Pfandbriefbank AG	2006	Borrowers' note loan	1	4.910	2021
10	Deutsche Pfandbriefbank AG	2002	Borrowers' note loan	4	6.550	2022
11	Deutsche Pfandbriefbank AG	2002	Borrowers' note loan	6	6.550	2022
12	Deutsche Pfandbriefbank AG	2002	Bearer bond	10	6.570	2022
13	Deutsche Pfandbriefbank AG	2003	Bearer bond	10	6.750	2023
14	Deutsche Pfandbriefbank AG	2008	Bearer bond	10	8.060	2023
15	Deutsche Pfandbriefbank AG	2003	Borrowers' note loan	5	6.330	2023
16	Deutsche Pfandbriefbank AG	2003	Borrowers' note loan	5	6.330	2023
17	Deutsche Pfandbriefbank AG	2005	Borrowers' note loan	10	4.650	2025
18	Deutsche Pfandbriefbank AG	2016	Borrowers' note loan	2	3.950	2026
19	Deutsche Pfandbriefbank AG	2006	Borrowers' note loan	2.5	4.530	2026
20	Deutsche Pfandbriefbank AG	2001	Bearer bond	8	6.550	2026
21	Deutsche Pfandbriefbank AG	2006	Registered Bond	5	5.125	2026
22	Deutsche Pfandbriefbank AG	2016	Borrowers' note loan	5	3.880	2026
23	Deutsche Pfandbriefbank AG	2006	Borrowers' note loan	5	5.040	2026
24	Deutsche Pfandbriefbank AG	2016	Bearer bond	35	3.250	2026
25	Deutsche Pfandbriefbank AG	2017	Bearer bond	150	4.600	2027
26	Deutsche Pfandbriefbank AG	2017	Bearer bond	60	3.375	2027
27	Deutsche Pfandbriefbank AG	2017	Bearer bond	300	2.875	2027
28	Deutsche Pfandbriefbank AG	2016	Bearer bond	5	4.120	2031
29	Deutsche Pfandbriefbank AG	2017	Registered Bond	7.5	4.550	2032
Total				**694**		

1) The sequential numbering corresponds to the consecutive numbering of the capital instruments in the appendix "Disclosure Report - Main Features of Capital Instruments".

All subordinated liabilities are subject to market-based interest. There is no obligation of the issuer to a premature repayment. These loans are subordinated to all claims of those obligors who are not subordinated (in the event of liquidation, insolvency or in the event of ongoing insolvency or other proceedings), but they enjoy priority over the liquidation claims of the shareholders. No subsequent limitation of subordination, maturity or notice period can be made. Debtors termination rights are subject to defined contractual conditions. The original terms are at least five years, and are usually between ten and 20 years.

After recognition of discounts and amortizations in accordance with Article 64 CRR, tier 2 capital before regulatory adjustments amounted to a total of € 653 million as of 30 June 2018 (31 December 2017: € 670 million).

Own funds total

The own funds of the pbb Group totaling € 3,612 million (31 December 2017: € 3,239 million) consist of common equity tier 1 (CET1) capital of € 2,661 million, additional equity tier 1 (AT1) capital of € 298 million and tier 2 (T2) capital of € 653 million.

The main factor for the increase in regulatory capital of pbb Group by a total of € 373 million compared with the year end of 2017 are those of pbb issued subordinated bearer bonds in April 2018 (AT1 capital). Opposing effects included repayments of subordinated liabilities due in the first half of 2018 and decreases in the recognition of subordinated bonds (T2 capital) due to daily amortizations under Article 64 CRR.

Optional IFRS 9 transitional arrangements

Since 1 January 2018, pbb Group has applied IFRS 9 "Financial Instruments" as adopted by the European Union, which has replaced the previously valid regulations of IAS 39 on accounting for financial instruments. Financial instruments are essentially receivables, securities, financial liabilities and derivatives. The implementation of IFRS 9 introduces new rules on the classification and measurement of financial assets and on the recognition of impairments, which also affect regulatory own funds.

On 12 January 2018, the European Banking Authority (EBA) published the guidelines EBA/GL/2018/01 regarding uniform disclosure of the regulatory consequences resulting from the application of the optional transitional regulations in accordance with Article 473 letter a CRR for mitigating the effects of the introduction of IFRS 9 after 1 January 2018. These transitional regulations provide the institutions with the possibility of spreading the regulatory impact of the simultaneous initial application of the expected credit loss – value adjustment model of IFRS 9 over a period of five years and thus to reduce the impact of the introduction of accounting standard IFRS 9 on the own funds.

The pbb Group does not apply these optional IFRS 9 transitional regulations. In total, the classification and valuation as well as the recognition of impairments resulted in a positive effect of the initial application of IFRS 9 on equity for the pbb Group. The first-time application of IFRS 9 was accounted for retroactively as of 1 January 2018. The first-time application effects were therefore recognized directly in equity. In total, the first-time adoption of IFRS 9 resulted in an increase in IFRS equity of € 126 million before deferred taxes and € 109 million after deferred taxes.

The disclosure of table IFRS 9-FL "Comparison of regulatory capital and leverage ratios of institutions with and without the application of the transitional provisions for IFRS 9 or comparable expected credit losses" in accordance with the guidelines EBA/GL/2018/01 is insofar not relevant for pbb Group.

Further information concerning the classification and valuation of financial instruments in accordance with IFRS 9 can be found in the interim report 2018 of the pbb Group, in the consolidated financial statements, note 2 “Principles”, published on the website of pbb.

Capital ratios

The regulatory requirements of the Regulation (EU) No. 575/2013 (Capital Requirements Regulation, CRR) and the Directive 2013/36/EU (Capital Requirements Directive, CRD IV) have been applicable since 1 January 2014. These regulations form the basis for determining the regulatory capital and capital ratios.

According to these provisions, the common equity tier 1 ratio (CET1 ratio: common equity tier 1 divided by the risk-weighted assets) must not fall below 4.5%, the tier 1 ratio (T1 ratio: tier 1 divided by the risk-weighted assets) must not fall below 6.0% and the own funds ratio (own funds divided by the risk-weighted assets) must not fall below 8.0% in the financial year 2018. pbb as the parent company of the institutional group in accordance with Section 10a KWG in conjunction with Article 11 et seq. CRR, is responsible for ensuring compliance with the capital ratios on a summarized basis.

The pbb Group has a sound capital base. Compared to the end of 2017, both the CET1 ratio and the equity ratio increased by around 4 percentage points. The provisions regarding the regulatory capital ratios were complied with at all times in the first half of the financial year 2018.

SREP

This is also applicable for the requirements regarding the minimum capital of the Supervisory Review and Evaluation Process (SREP) of the European Central Bank (ECB) which exceed the existing regulatory requirements.

The objective of this 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 capitalization and liquidity status. Based on the results of the analysis as well as using benchmark comparison, the ECB may impose minimum capitalization or liquidity requirements, over and above existing regulatory requirements. At the end of the financial year 2017, pbb Group was informed by the ECB of the new minimum capital requirements for 2018 as part of the regular annual revision.

Minimum CET1 ratio

According to this, pbb Group has since 1 January 2018, maintained a minimum CET1 ratio of 9.125% (without the country-specific and therefore portfolio-specific anticyclical capital buffer of 0.164% as of 30 June 2018). This requirement consists of a Pillar 1 minimum capital requirement (4.50%), a Pillar 2 requirement (P2R: 2.75%) and the capital conservation buffer (1.875% phase-in for 2018). The CET1 minimum capital requirement valid for 2018 is applicable to the calculation of a maximum distributable amount (MDA). In principle, the MDA limits distributions to CET1 capital, new performance-related remuneration and interest payments on supplementary CET1 capital.

Total capital requirement

The total capital requirement valid since 1 January 2018 is 12.625% (without the country-specific and therefore portfolio-specific anticyclical capital buffer of 0.164% as of 30 June 2018). It consists of a Pillar 1 minimum equity capital requirement (8.00%), a Pillar 2 capital requirement (2.75%) and the capital conservation buffer (1.875% phase-in for 2018).

3 Own funds requirements

As the parent company of the institutional group in accordance with Section 10a KWG in conjunction with Article 11 et seq. CRR, pbb is responsible for ensuring compliance with the own funds requirements on a consolidated basis (regulatory consolidation group).

Methods for determining the own funds requirement

Since 1 January 2014, the pbb Group has been applying the provisions of CRR, and is thus subject to the disclosure requirements of part 8 of the CRR. The regulations of CRR/CRD IV form the basis for the minimum amount of own funds as well as the calculation of own funds requirements. In order to comply with the own funds requirements, the credit risk (including counterparty credit risk), the market risk, the operational risk, the settlement risk as well as the credit value adjustment risk (CVA risk) must be backed with capital. The regulatory parameters are calculated based on the IFRS accounting standards.

Credit risk (incl. Counterparty credit risk)

For determining the own funds requirements for credit risks, the pbb Group uses the advanced IRB approach based on internal rating procedures in accordance with Article 142 et seq. CRR. The following table shows the coverage for IRBA exposure at default (EAD) and for risk-weighted IRBA assets (RWA) in accordance with Section 11 SolvV.

Table 4: 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%
31 December 2017	97%	99%
30 June 2018	96%	98%

The advanced IRB approach in the credit portfolio of the pbb Group covers 96% of the exposure at default (EAD) and 98% of risk weighted assets (RWA) as of 30 June 2018. The remaining percent points which are subject to the standard approach in accordance with the CRR rules relate for instance to default exposures with public-sector borrowers (amounts due from German municipalities) or the non-strategic remaining portfolio which consists of smaller retail customer real estate loans.

For calculating the own funds requirements for the counterparty credit risk in accordance with part 3, title II, chapter 6 of the CRR (i.e. for derivative transactions), the pbb Group uses the mark-to-market method in accordance with Article 274 CRR.

For security financing transactions (security lending/repo transactions), the pbb Group applies the provisions for minimizing credit risk in accordance with chapter 4 of the CRR, the comprehensive method for recognizing financial security in accordance with Article 223 et seq. CRR.

For calculating the own funds requirements for pre-financed contributions to the default fund of a qualified central counterparty, the pbb Group applies the risk-sensitive method in accordance with Article 308 CRR.

Market risk

For calculating the own fund backing for market risks in accordance with part 3, title IV of the CRR, the pbb Group applies the standard approach in accordance with Article 325 et seq. CRR. The bank’s own internal models are not used at present.

Operational risk

The own fund backing for operational risk in accordance with part 3, title IIII of the CRR is calculated by the pbb Group using the standard approach in accordance with Article 317 et seq. CRR.

Settlement risk

The own fund requirements for the settlement and delivery risk in accordance with part 3, title V of the CRR are calculated using the rules defined in the Articles 378 and 379 CRR.

CVA risk

For calculating the additional own funds requirement for OTC derivatives for the risk of a credit valuation adjustment (CVA risk) in accordance with part 3, title VI of the CRR, the pbb Group applies the standard method in accordance with Article 384 CRR. This is based on the effective maturity, a rating-relating weighting and the EAD, whereby the EAD for the relevant transactions is determined using the mark-to-market method in accordance with Article 274 CRR.

Risk-weighted receivables and own funds requirements

As was the case at year end of the previous year, the minimum own funds requirements for the specified risk types as of 30 June 2018 amounted to 8% of the risk-weighted receivables.

The total own funds requirement is 10.039% (31 December 2017: 9.355%). The increase of 0.684% compared with 31 December 2017 is mainly attributable to the gradual increase in the capital conservation buffer in accordance with Section 10c KWG in conjunction with the transitional regulations in accordance with Section 64r KWG to 1.875% of the total risk amount in 2018 (2017: 1.250%), as well as the slight increase in the bank-specific countercyclical capital buffer (CCP) pursuant to section 10d KWG in conjunction with Section 64r KWG, which for the pbb Group as at 30 June 2018 amounts to 0.164% (31 December 2017: 0.105%) of the aggregate risk amount.

The risk-weighted assets (RWA) of the pbb Group amounted to € 13,744 million as of 30 June 2017 (31 December 2017: € 14,515 million), and thus slightly lower compared with the end of the previous year.

In accordance with Article 438 letters c to f CRR in conjunction with EU OV1 of the guidelines EBA/GL/2016/11, the following table shows the risk-weighted assets as well as the regulatory capital backing, broken according to risk types.

Table 5: Risk-weighted assets and minimum capital requirements (EU OV1)

All figures in € million

		Risk-weighted assets (RWA)		Minimum capital requirement
		30.06.2018	31.12.2017	30.06.2018
1	**Credit risk (without Counterparty credit risk)**	**11,963**	**12,583**	**957**
2	Of which: Standardised approach (CRSA)	370	280	30
2a	Exposures to central governments or central banks	-	-	-
2b	Exposures to regional governments or local authorities	-	-	-
2c	Exposures to other public sector entities	2	-	0.2
2d	Exposures to multilateral development banks	-	-	-
2e	Exposures to international organisations	-	-	-
2f	Exposures to institutions	-	-	-
2g	Exposures to corporates	217	118	17
2h	Retail exposures	-	-	-
2i	Exposures secured by mortgages on immovable property	7	7	1
2j	Exposures in default	3	6	0.2
2k	Exposures associated with particularly high risk	-	-	-
2l	Exposures in the form of covered bonds	-	-	-
2m	Exposures to institutions and corporates with short-term credit assessment	-	-	-
2n	Exposures in the form of units or shares in collective investment undertakings (CIUs)	3	3	0.2
2o	Equity exposures	-	0.08	-
2p	Other itmes [1)]	138	147	11

All figures in € million

		Risk-weighted assets (RWA)		Minimum capital requirement
		30.06.2018	31.12.2017	30.06.2018
1	**Credit risk (without Counterparty credit risk)**	**11,963**	**12,583**	**957**
3	Of which: Foundation IRB (FIRB) approach	-	-	-
4	Of which: Advanced IRB (AIRB) approach	11,593	12,303	927
4a	Exposures to central governments and central banks	2,065	2,401	165
4b	Exposures to institutions	2,347	2,414	188
4c	Exposures to corporates	7,161	7,467	573
4ca	Of which: Small and medium-sized enterprises (SME)	300	318	24
4cb	Of which: Spesialised lending exposures	6,367	6,587	509
4cc	Of which: Other	494	562	40
4g	Retail exposures	-	-	-
4h	Other non credit-obligation assets	20	21	2
5	Of which: Equity IRB exposures under the simple risk-weighted approach or the internal model approach (IMA)	0.1	0.05	0.008
5a	Of which: Internal model approach (IMA)	-	-	-
5b	Of which: Simple risk-weighting approach	0.1	0.05	0.008
5ba	Of which: Exchange-traded equity investments	-	-	-
5bb	Of which: Unlisted, but part of a sufficiently deversified portfolio	-	-	-
5bc	Of which: Other investments	0.1	0.05	0.008
6	**Counterparty credit risk** [2]	**621**	**661**	**50**
7	Of which: Mark-to-market method	321	366	26
8	Of which: Original exposure method	-	-	-
9	Of which: Standardised approach	-	-	-
10	Of which: Internal model method (IMM)	-	-	-
11	Of which: Risk exposure amount for contributions to the default fund of a central counterparty (CCP)	1	1	0.1
12	Of which: CVA risk [3]	299	294	24
12a	Of which: Advanced method	-	-	-
12b	Of which: Standardised method	299	294	24
12c	Of which: Alternative method, based on the original exposure method	-	-	-
13	**Settlement risk**	**0**	**0**	**0**
13a	Of which: In the banking book	-	-	-
13b	Of which: In the trading book	-	-	-
14	**Securitisation exposures in the banking book (after the cap)**	**0**	**0**	**0**
15	Of which: IRB approach	-	-	-
16	Of which: IRB supervisory formular approach (SFA)	-	-	-
17	Of which: Internal assessment approach (IAA)	-	-	-
18	Of which: Standardised approach	-	-	-
19	**Market risk**	**261**	**370**	**21**
20	Of which: Standardised approach	261	370	21
20a	Of which: Position risk	-	-	-
20b	Of which: Foreign-exchange risk	261	370	21
20c	Of which: Commodity risk	-	-	-
21	Of which: Internal model approach (IMA)	-	-	-
22	**Large exposures in the trading book** [4]	**0**	**0**	**0**
23	**Operational risk**	**899**	**899**	**72**
24	Of which: Basic indicator approach	-	-	-
25	Of which: Standardised approach	899	899	72
26	Of which: Advanced measurement approach (AMA)	-	-	-
27	Amounts below the thresholds for deduction (subject to 250% risk weight)	-	146	-
28	Floor adjustment	-	-	-
29	**Total**	**13,744**	**14,515**	**1,100**

1) Subject to future profitability, from or not from temporary differences resulting from deferred tax assets.
2) Counterparty credit risk in accordance with Part Three, Title II, Chapter 6 of the CRR (derivative transactions).
3) Credit Value Adjustments; capital requirement for the risk of a adjustment of credit valuation for OTC derivatives.
4) pbb does not maintain a trading book for securities or derivatives portfolios held to realise short-term gains.

The decline in risk-weighted exposure amounts by a total of € 771 million compared to the end of the previous year resulted mainly from repayments and amortizations, including the further strategic decrease in the non-strategic portfolio, and from changes in loss given default (LGD) to determinate risk weights. An opposing effect is above all the volume of new business transacted in the first half of 2018 (including extensions with terms of more than one year), in particular in strategic commercial real estate financing.

From 1 January 2018, pbb Group applies the simple IRBA risk weight for equity exposures pursuant to Article 155 (2) CRR for its investments. Until the end of 2017, pbb Group used the possibility of grandfathering for the shareholdings that were already held before 1 January 2008, in accordance with Article 495 (1) CRR. These equity holdings were temporarily exempt from the IRB approach until 31 December 2017 and were treated in line with the rules of the standard approach.

The minimum capital requirement for the risk-weighted assets of pbb Group totalled € 1,100 million as of the reporting date (31 December 2017: € 1,161 million). In line with pbb Group's business model, which focuses on commercial real estate financing and public investment finance, 92% of the capital requirement is attributable to credit default risks (including counterparty default and CVA risks), 2% to market risks and 6% to operational risks.

The total own funds requirement amounted to € 1,380 million (31 December 2017: € 1,358 million). The slight increase of € 22 million compared with year end of 2017 is attributable to the above-mentioned increase in the capital conservation buffer to 1.875% as well as the slight increase in the institution-specific countercyclical capital buffer (ICCB), each in the first half of 2018. An opposite effect is the reduction in risk-weighted receivables.

In accordance with Section 10c (1) KWG and Section 10d (1) KWG, the capital requirement for the capital buffer must be maintained in common equity tier 1 (CET1) capital. After complying with the CET1 ratio of 4.5% of the total risk amount, a total of € 2,043 million (31 December 2017: € 1,916 million) of common equity tier 1 (CET1) capital is available to the pbb Group for this purpose.

Surplus own resources

As of 30 June 2018, the surplus own resources (own funds less own funds requirement incl. capital buffer) amounted to € 2,232 million for the pbb Group (31 December 2017: € 1,881 million).

4 Leverage ratio

According to Article 429 (2) CRR, the leverage ratio (a capital requirement which is not risk-based) is defined as the capital parameter of an institution divided by that institution's total exposure parameter, 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 aim is to limit the increase in leverage in the banking sector, to mitigate the risk of borrowings with a destabilizing impact which can harm the financial system and the economy and to complement the risk-based requirements with a simple safety mechanism which is not risk-based.

The calculation of the ratio is based on the provisions of the Delegated Regulation (EU) 2015/62 of the Commission for amending the Regulation (EU) No. 575/2013 of the European Parliament and Council with regard to the leverage ratio. According to these provisions, the calculation and disclosure of the regulatory leverage ratio is based on the carrying amount as the relevant measurement of assets. Specific regulatory measurements are applicable for derivatives and security financing transactions (security lending/repo transactions). Off-balance-sheet exposures are also taken into consideration in order to determine the overall risk of leverage.

In accordance with Article 451 CRR in conjunction with the Implementation Regulation (EU) 2016/200 regarding the disclosure of the leverage ratio, the following tables show the leverage ratio factors for the pbb Group. There has so far not been a binding maximum limit in the European Union (EU) for the leverage ratio which has to be complied with by the credit institutions. However, within the framework of the Basel III regulations regarding the maximum leverage ratio, a reference value of > 3% has been tested and observed. On 3 August 2016, the European Banking Authority (EBA) published its report on the impact assessment and calibration of the leverage ratio (EBA-Op-2016-13). In this report, the EBA recommends the introduction of a binding minimum leverage ratio in the EU from 1 January 2018. The required minimum ratio should be 3%. In this connection, the draft law published by the European Commission on 23 November 2016 (draft for the CRR II/CRD V/BRRD II) also recommends the introduction of a minimum leverage ratio of 3% for all credit institutions who fall under the CRR/CRD IV framework. The draft law states that the leverage ratio should be applied two years after coming into force; however, this is still the subject of discussion within the EU institutions.

The leverage ratio for the pbb Group amounted to 5.3% as of 30 June 2018, and is thus considerably higher than this minimum requirement.

Table 6: Leverage ratio (EU LRCom shortened)

All figures in € million, unless otherwise stated

	Leverage ratio common disclosure	30.06.2018 (IFRS 9)	31.12.2017 (IAS 39)
20	Tier 1 capital	2,959	2,569
21	Total leverage ratio exposures	56,359	56,221
22	Leverage ratio	5.3%	4.6%

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

Compared to the end of 2017, the leverage ratio for the pbb Group as at 30 June 2018 improved to 5.3% (31 December 2017: 4.6%). A slight increase in the total risk exposure of around € 138 million was overcompensated by the increase in tier 1 capital of around € 390 million, mainly due to the issuance of subordinated bearer bonds (AT1 capital) in April 2018. The tier 1 capital (T1) amounts as at 30 June 2018 to € 2,959 million (31 December 2017: € 2,569 million), the total risk exposure measure amounts to € 56,359 million (31 December 2017: € 56,221 million).

5 IRBA exposures

In accordance with the Articles 452 letter d, e and f CRR in conjunction with the guidelines EBA/GL/2016/11, the following chapter contains information relating to default exposures (including counterparty default risk) for which the pbb Group calculates the risk-weighted receivables amounts using the advanced IRB approach based on internal rating methods (IRBA).

The credit risk in general is defined as the risk due to a threatened unexpected default or decline in the market value of a receivable (loan or bond) or a derivative (alternatively of an entire portfolio of claims/derivatives). The reason for this can be either a deterioration in a country's or counterparty's creditworthiness or by a deterioration in collateralization. The credit risk comprises the default risk, migration risk, realization risk of defaulted positions, transfer and conversion risk, tenant risk, settlement risk, extension risk as well as concentration risk, which are defined as follow in pbb Group's risk strategy. The individual types of counterparty risk are described in pbb Group's Disclosure Report 2017 on page 62 et seq. described.

For determining the own funds requirements for credit risks, the pbb Group uses the advanced IRB approach based on internal rating methods (IRBA) as well as the advanced IRB approach according Article 144 et seq. CRR. Some clearly defined subportfolios are not covered by the IRB approach and are subject to the standard approach under the Partial Use (Article 150 CRR). These are as follows:

- Default exposures associated with German municipalities in accordance with Article 150 letter d CRR
- Default exposures which belong to an area which is being phased out in accordance with Article 150 letter c CRR in conjunction with Section 14 SolvV (e.g. small-volume retail loans, credit standing assessed by means of retail scoring)
- Receivables due from central counterparties (Eurex Clearing)
- Other default exposures which are not subject to any rating procedure according to the IRB approach approved by the German banking regulator.

As of 30 June 2018, the advanced IRB approach in the loan portfolio of pbb Group covers 96% with regard to the EAD and 98% with regard to RWA (coverage according to § 11 SolvV). The IRBA rating systems on which coverage is based, for which pbb has received an approval and which have been accepted by the supervisory authority, are listed in pbb Group's disclosure report 2017 on page 91 et seq.

The following table in accordance with Article 452 letters d to f CRR in conjunction with EU CR6 of the guidelines EBA/GL/2016/11 shows (broken down according to PD areas and IRBA exposure categories) the (on-balance-sheet and off-balance- sheet) original receivable amounts and the corresponding IRBA exposure amounts (EAD) as well as the risk-weighted receivable amounts (RWA) together with the RWA density, in conjunction with the main parameters which are used for calculating the own funds requirements with the rating systems described above: These include the weighted average IRBA parameters probability of default (PD), loss given default (LGD), product-specific credit conversion factor (CCF) and maturity (in years) as well as the amounts of the expected loss (EL) and the impairments/provisions which have been created.

In addition, the table shows in accordance with Article 452 (e) CRR in conjunction with EU CCR4 of EBA/GL/2016/11 the exposures and significant risk parameters of the items in the IRB approach for which the exposure value is calculated in accordance with Part 3, Title II, Chapter 6 "Counterparty Credit Risk" of the CRR. pbb applies these rules for the calculation of the exposure value for counterparty default risk to derivative transactions using the market valuation method in accordance with Article 274 CRR.

Table 7: IRBA exposures and PD ranges (EU CR6)

All figures in € million, unless otherwise stated

	Exposure classes according to PD ranges IRB approach	**Original on-balance-sheet gross exposures** [1]	**Off-balance-sheet exposures pre-CCF** [2]	**Average CCF** [3] in %	**Exposure at default (EAD) post CRM and post CCF** [4]	**Average PD** [5] in %	**Number of obligors**	**Average LGD** [6] in %	**Average maturity** in years	**Risk-weighted assets (RWA)**	**RWA density** [7] in %	**Expected loss (EL)**	**Value adjustments (allowances) and provisions**
		a	b	c	d	e	f	g	h	i	j	k	l
1	Central governments and central banks												
2	0,00 to < 0,15	16,729	109	100 %	19,564	0.01 %	87	22 %	4.25	1,433	7 %	1	—
3	0,15 to < 0,25	-	-	-	-	-	-	-	-	-	-	-	—
4	0,25 to < 0,50	640	-	-	640	0.45 %	5	47 %	3.32	554	87 %	1	—
5	0,50 to < 0,75	-	-	-	-	-	-	-	-	-	-	-	—
6	0,75 to < 2,50	32	-	-	32	2.00 %	1	43 %	5.00	47	150 %	0.3	—
7	2,50 to < 10,00	17	32	100 %	2	5.00 %	1	10 %	4.97	1	42 %	0.01	—
8	10,00 to < 100,00	18	-	-	18	10.00 %	1	41 %	1.20	31	171 %	1	—
9	100,00 (Default)	-	-	-	-	-	-	-	-	-	-	-	—
10	Subtotal	17,435	141	100 %	20,256	0.04 %	95	23 %	4.22	2,066	10 %	4	4
11	Institutions												
12	0,00 to < 0,15	3,154	276	99 %	3,402	0.05 %	118	42 %	4.64	1,020	30 %	1	—
13	0,15 to < 0,25	1,302	-	-	227	0.20 %	18	19 %	1.40	50	22 %	0.1	—
14	0,25 to < 0,50	1,671	-	-	1,671	0.42 %	8	12 %	2.79	414	25 %	1	—
15	0,50 to < 0,75	-	-	-	-	-	-	-	-	-	-	-	—
16	0,75 to < 2,50	248	-	-	248	1.50 %	2	11 %	3.99	103	42 %	0.4	—
17	2,50 to < 10,00	-	-	-	-	-	-	-	-	-	-	-	—
18	10,00 to < 100,00	44	-	-	217	21.51 %	2	57 %	4.19	759	350 %	27	—
19	100,00 (Default)	-	-	-	-	-	-	-	-	-	-	-	—
20	Subtotal	6,419	276	99 %	5,766	1.03 %	148	32 %	3.93	2,347	41 %	29	2
21	Corporates												
22	0,00 to < 0,15	1,727	17	50 %	1,189	0.08 %	89	9 %	4.07	66	6 %	0.1	—
23	0,15 to < 0,25	2,599	96	74 %	2,430	0.20 %	115	7 %	3.99	216	9 %	0.3	—
24	0,25 to < 0,50	6,806	245	79 %	6,835	0.39 %	289	9 %	3.68	959	14 %	2	—
25	0,50 to < 0,75	-	-	-	-	-	-	-	-	-	-	-	—
26	0,75 to < 2,50	10,951	1,146	87 %	11,428	1.26 %	337	11 %	3.33	3,221	28 %	16	—
27	2,50 to < 10,00	4,994	2,154	86 %	6,411	3.86 %	171	12 %	3.18	2,449	38 %	30	—
28	10,00 to < 100,00	476	99	50 %	253	13.01 %	17	22 %	1.89	250	99 %	7	—
29	100,00 (Default)	89	3	100 %	93	100.00 %	15	34 %	3.34	-	-	32	—
30	Subtotal	27,641	3,761	85 %	28,637	1.92 %	1,033	11 %	3.45	7,161	25 %	88	67

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All figures in € million, unless otherwise stated

	Exposure classes according to PD ranges IRB approach	Original on-balance-sheet gross exposures 1)	Off-balance-sheet exposures pre-CCF 2)	Average CCF 3) in %	Exposure at default (EAD) post CRM and post CCF 4)	Average PD 5) in %	Number of obligors	Average LGD 6) in %	Average maturity in years	Risk-weighted assets (RWA)	RWA density 7) in %	Expected loss (EL)	Value adjustments (allowances) and provisions
		a	b	c	d	e	f	g	h	i	j	k	l
31	Of which: Specialised lending												
32	0,00 to < 0,15	234	17	50 %	243	0.10 %	14	8 %	3.45	18	7 %	0.02	
33	0,15 to < 0,25	1,699	2	80 %	1,700	0.20 %	41	7 %	3.95	143	8 %	0.2	
34	0,25 to < 0,50	5,078	103	52 %	5,131	0.38 %	143	10 %	3.46	814	16 %	2	
35	0,50 to < 0,75	-	-	-	-	-	-	-	-	-	-	-	
36	0,75 to < 2,50	9,502	784	78 %	10,046	1.27 %	191	12 %	3.22	2,840	28 %	15	
37	2,50 to < 10,00	4,472	1,954	85 %	5,967	3.94 %	107	12 %	3.06	2,311	39 %	29	
38	10,00 to < 100,00	208	79	50 %	248	13.04 %	6	22 %	1.82	242	98 %	7	
39	100,00 (Default)	51	1	100 %	52	100.00 %	7	53 %	2.08	-	-	27	
40	Subtotal	21,244	2,939	81 %	23,385	2.01 %	509	11 %	3.27	6,367	27 %	80	29
41	Of which: SMEs												
42	0,00 to < 0,15	82	-	-	62	0.08 %	28	4 %	4.47	2	3 %	-	
43	0,15 to < 0,25	114	-	-	113	0.20 %	53	6 %	4.41	8	7 %	0.01	
44	0,25 to < 0,50	1,171	133	92 %	1,278	0.41 %	92	5 %	4.46	97	8 %	0.2	
45	0,50 to < 0,75	-	-	-	-	-	-	-	-	-	-	-	
46	0,75 to < 2,50	707	85	100 %	770	1.03 %	69	8 %	3.93	139	18 %	1	
47	2,50 to < 10,00	205	39	100 %	244	2.92 %	29	7 %	4.54	54	22 %	1	
48	10,00 to < 100,00	-	-	-	-	-	-	-	-	-	-	-	
49	100,00 (Default)	36	2	100 %	38	100.00 %	5	8 %	5.00	-	-	3	
50	Subtotal	2,315	259	96 %	2,505	2.33 %	276	6 %	4.31	300	12 %	4	2
51	Retail	-	-	-	-	-	-	-	-	-	-	-	-
52	Equity	0.03	-	-	0.03	-	-	-	-	0.1	370 %	-	-
53	Of which: Internal model approach (IMA)	-	-	-	-	-	-	-	-	-	-	-	
54	Of which: PD-/LGD approach	-	-	-	-	-	-	-	-	-	-	-	
55	Of which: Simple risk-weighting approach	0.03	-	-	0.03	-	-	-	-	0.1	370 %	-	
56	**Total IRB approach**	**51,495**	**4,178**	**87 %**	**54,659**	**1.13 %**	**1,276**	**17 %**	**3.79**	**11,574**	**21 %**	**121**	**73**

1) Gross carrying value before deduction of allowances (but after write-offs) as well as before considering any credit risk mitigation (CRM) techniques.
2) Nominal value before deduction of provisions as well as before considering any credit risk mitigation (CRM) techniques and Credit Conversion Factors (CCF).
3) Relationship between column (d) and column (b) for off-balance-sheet exposures.
4) IRBA regulatory exposure value (Exposure at Default, EAD), i.e. after considering any credit risk mitigation (CRM) techniques and Credit Conversion Factors (CCF), but before credit risk adjustment (allowances and provisions).
5) Average probability of default (PD) weighted by the EAD.
6) Average loss given default (LGD) weighted by the EAD.
7) Relationship between column (i) and column (d).

Table 8: Counterparty credit risk exposures under the IRBA approach (EU CCR4)

All figures in € million, unless otherwise stated

	Exposure classes according to PD ranges IRB approach	Exposure at default (EAD) post CRM [1]	Average PD [2] in %	Number of obligors	Average LGD [3] in %	Average maturity in years	Risk-weighted assets (RWA)	RWA density [4] in %
		a	b	c	d	e	f	g
1	Central governments and central banks							
2	0,00 to < 0,15	3	0.05 %	2	99 %	5.00	3	76 %
3	0,15 to < 0,25	-	-	-	-	-	-	-
4	0,25 to < 0,50	-	-	-	-	-	-	-
5	0,50 to < 0,75	-	-	-	-	-	-	-
6	0,75 to < 2,50	-	-	-	-	-	-	-
7	2,50 to < 10,00	-	-	-	-	-	-	-
8	10,00 to < 100,00	-	-	-	-	-	-	-
9	100,00 (Default)	-	-	-	-	-	-	-
10	Subtotal	3	0.05 %	2	99 %	5.00	3	76 %
11	Institutions							
12	0,00 to < 0,15	99	0.10 %	7	14 %	4.22	19	19 %
13	0,15 to < 0,25	177	0.20 %	15	15 %	4.23	52	29 %
14	0,25 to < 0,50	106	0.35 %	10	15 %	4.70	41	39 %
15	0,50 to < 0,75	-	-	-	-	-	-	-
16	0,75 to < 2,50	-	-	-	-	-	-	-
17	2,50 to < 10,00	-	-	-	-	-	-	-
18	10,00 to < 100,00	-	-	-	-	-	-	-
19	100,00 (Default)	-	-	-	-	-	-	-
20	Subtotal	382	0.22 %	32	15 %	4.36	112	29 %
21	Corporates							
22	0,00 to < 0,15	33	0.01 %	4	19 %	4.91	2	7 %
23	0,15 to < 0,25	15	0.20 %	12	56 %	4.84	12	81 %
24	0,25 to < 0,50	46	0.40 %	62	56 %	3.57	42	91 %
25	0,50 to < 0,75	-	-	-	-	-	-	-
26	0,75 to < 2,50	63	1.12 %	59	56 %	3.69	88	141 %
27	2,50 to < 10,00	20	3.36 %	26	56 %	4.35	36	178 %
28	10,00 to < 100,00	11	10.00 %	2	56 %	4.45	24	216 %
29	100,00 (Default)	2	100.00 %	1	57 %	2.50	-	-
30	Subtotal	190	2.74 %	166	50 %	4.06	205	108 %
31	Of which: Specialised lending							
32	0,00 to < 0,15	1	0.10 %	2	56 %	2.65	0.4	35 %
33	0,15 to < 0,25	6	0.20 %	9	56 %	4.63	4	70 %
34	0,25 to < 0,50	25	0.37 %	54	56 %	3.29	22	88 %
35	0,50 to < 0,75	-	-	-	-	-	-	-
36	0,75 to < 2,50	56	1.13 %	55	56 %	3.76	81	145 %
37	2,50 to < 10,00	17	3.33 %	24	56 %	4.23	30	175 %
38	10,00 to < 100,00	11	10.00 %	2	56 %	4.45	24	216 %
39	100,00 (Default)	-	-	-	-	-	-	-
40	Subtotal	117	2.07 %	146	56 %	3.83	162	139 %
41	Of which: SMEs							
42	0,00 to < 0,15	-	-	-	-	-	-	-
43	0,15 to < 0,25	0.02	0.20 %	1	56 %	1.00	0.01	33 %
44	0,25 to < 0,50	12	0.45 %	3	56 %	4.72	12	97 %
45	0,50 to < 0,75	-	-	-	-	-	-	-
46	0,75 to < 2,50	6	1.02 %	2	56 %	3.05	7	109 %
47	2,50 to < 10,00	3	3.50 %	2	56 %	5.00	6	191 %
48	10,00 to < 100,00	-	-	-	-	-	-	-
49	100,00 (Default)	2	100.00 %	1	57 %	2.50	-	-
50	Subtotal	24	11.40 %	9	56 %	4.10	25	103 %
51	Retail	-	-	-	-	-	-	-
		-	-	-	-	-	-	-
52	Equity	-	-	-	-	-	-	-
53	Of which: Internal model approach (IMA)	-	-	-	-	-	-	-
54	Of which: PD-/LGD approach	-	-	-	-	-	-	-
55	Of which: Simple risk-weighting approach	-	-	-	-	-	-	-
56	**Total**	**576**	**1.05 %**	**200**	**27 %**	**4.26**	**319**	**55 %**

1) IRBA-Regulatory exposure value (Exposure at Default, EAD) or credit equivalent amount after considering any credit risk mitigation (CRM) techniques.
2) Average probability of default (PD) weighted by the EAD.
3) Average loss given default (LGD) weighted by the EAD.
4) Relationship between column (f) and column (a).

The relevant regulatory exposures for determining risk-weighted assets (RWA) or for calculating own funds requirements is the exposure at default (EAD).

The EAD for IRBA positions in line with CRR shows the outstanding receivable in the event of a default. For most products, this is the IFRS carrying amount shown in the balance sheet, incl. cumulative interest. In the event of a committed credit line, this is multiplied by the product-specific credit conversion factor (CCF) and forms a further part of the EAD. The credit conversion factor (CCF) expresses the expected utilization (in percent) of an existing undrawn credit line within one year until the event of a default. The CCF is currently 50% for mortgage loans and 100% for all other products (e.g. guarantee loans and public investment finance).

Derivatives and security financing transactions (security lending/repo transactions) form an exception in this respect; for these transactions, the EAD does not correspond to the carrying amount, and instead has to be established with a different method in accordance with CRR (e.g. for derivatives in accordance with the mark-to-market method: market value plus regulatory add-on for potential future increases in market value, taking account of any effects of netting and collateral which is provided).

The EAD is established for all receivables, irrespective of whether or not a default has occurred.

For IRBA exposures (excluding counterparty credit risk exposures and other assets that are not credit exposures), the EAD amounted to € 54,659 million as of 30 June 2018 (31 December 2017: € 54,520 million) and RWA to € 11,574 million (31 December 2017: € 12,283 million).

The average RWA density for the IRBA receivables is 21% (31 December 2017: 23%) across all IRBA exposure classes. Risk weights are important factors when determining risk-weighted assets (RWA) which must be backed with own funds in a risk-oriented manner; the RWAs are calculated by multiplying the risk weight with the IRBA exposure at default (EAD).

The loss given default (LGD) indicates the expected loss suffered by the pbb Group if a customer fails to pay. In the IRB approach, this is 17% on average for the receivables (31 December 2017: 18%).

The probability of default (PD) indicates the probability that a borrower/counterparty will be unable over a period of one year to service their contractual loan obligations (irrespective of the amount of the exposure and the collateral provided). The PD on average (not including counterparty default risk positions) is 1.13% (31 December 2017: 1.17%).

The unutilised IRBA loan commitments amount to a total of € 4,178 million (31 December 2017: € 4,683 million. The average CCF – which indicates how much of a free credit line is expected to be utilized within one year before a possible default – is 87% (31 December 2017: 83%).

Model estimates for PD, LGD and CCF contain conservative adjustments which cover estimation uncertainties associated with the models. Estimates for LGD and CCF are also designed as so-called downturn estimates, i.e. the aim is to achieve a forecast of figures which are also appropriate in periods affected by an economic downturn.

6 Liquidity coverage ratio

The liquidity coverage ratio (LCR) is defined as the liquidity buffer of an institution (i.e. holdings of high-quality liquid assets) divided by its net liquidity outflows during a stress phase of 30 calendar days, and is expressed as a percentage. The ratio is calculated on the basis of the requirements of the Delegated Regulation (EU) 2015/61 of the Commission of 10 October 2014 for complementing the (EU) Directive No. 575/2013 of the European Parliament and Council regarding the liquidity coverage requirement of credit institutions.

In accordance with Article 412 CRR, the aim of the LCR is to oblige institutions to maintain a liquidity buffer in the form of highly liquid assets in order to be able to compensate for net outflows of cash over a period of 30 days in a stress scenario. The defined stress scenario comprises market-wide as well as institution-specific effects. In stress periods, institutions are permitted to use their liquid assets to cover their net liquidity outflows, even if such use of liquid assets would mean that the liquidity coverage ratio in such phases would fall below the minimum threshold of 100% which has been applicable since 2018.

The liquidity coverage ratio as of 30 June 2018 is at 321% for pbb Group (31 December 2017: 187%).

In accordance with Article 435 (1) CRR in conjunction with the guidelines EBA/GL/2017/01 of the European Banking Authority (EBA), the following table shows the information concerning the LCR for the pbb Group. In accordance with point 20 of the EBA/GL/2017/01, the information comprises the figures and the relevant numbers for each of the four calendar quarters before 30 June 2018. These figures and numbers have to be calculated as simple average figures of the month-end details collated over the twelve months before the end of each quarter.

Table 9: Liquidity coverage ratio (EU LIQ1 shortened)

All figures in € million, unless otherwise stated

	Liquidity Coverage Ratio (LCR) pbb Group	**Total unweighted value** (12-month-average) 1)				**Total weighted value** (12-month-average) 1)			
	Quarter ending on:	30.06.2018	31.03.2018	31.12.2017	30.09.2017	30.06.2018	31.03.2018	31.12.2017	30.09.2017
	Number of data points used in the calculation:	12	12	12	12	12	12	12	12
		a	b	c	d	e	f	g	h
21	Liquidity buffer					6,343	6,491	6,793	6,713
22	Total net cash outflows					2,647	2,632	2,795	2,782
23	Liquidity Coverage Ratio (in %)					240%	247%	243%	241%

1) The values and figures shall be calculated in accordance with EBA/GL/2017/01 as simple averages of the end-of-month surveys over the 12 months preceding the end of each quarter.

The pbb Group uses a wide range of refinancing sources, including deposits of private and institutional customers, issues on the capital markets as well as the raising of secured and unsecured funds via wholesale refinancing arrangements, whereby the main emphasis is on issues of Pfandbriefe.

pbb is the only credit institution of the pbb group. The liquidity management is carried out exclusively by the pbb.

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