DEUTSCHE PFANDBRIEFBANK

# Disclosure Report

In acc. with Regulation (EU) No. 575/2013 (CRR)
in conjunction with Amending Regulation (EU) 2019/876

As of 30 June 2019

# Overview (shortened)

## Deutsche Pfandbriefbank Group (pbb Group)

All figures in € million, unless otherwise stated

| Significant regulatory ratios | 30.06.2019 | 31.12.2018 | Change |
|---|---|---|---|
| **Own funds (total capital, TC)** | **3,583** | **3,639** | **-2%** |
| Tier 1 capital (T1) | 2,949 | 2,996 | -2% |
| Common equity tier 1 capital (CET1) | 2,651 | 2,698 | -2% |
| Additional tier 1 capital (AT1) | 298 | 298 | 0% |
| Tier 2 capital (T2) | 634 | 643 | -1% |
| **Risk weighted assets (RWA)** | **13,649** | **14,587** | **-6%** |
| Credit risk | 12,606 | 13,488 | -7% |
| Credit risk (without counterparty credit risk) | 12,045 | 12,963 | -7% |
| Counterparty credit risk | 561 | 524 | 7% |
| thereof: CVA risk | 253 | 262 | -3% |
| Market risk | 173 | 229 | -25% |
| Operational risk | 870 | 870 | 0% |
| **Capital ratios** | | | |
| Common equity tier 1 ratio ( (CET1 ratio) | 19.4% | 18.5% | +0.9 percentage points |
| Tier 1 ratio (T1 ratio) | 21.6% | 20.5% | +1.1 percentage points |
| Own funds ratio (Total capital ratio) | 26.3% | 24.9% | +1.4 percentage points |
| **Capital buffers** | | | |
| Total capital buffer requirement | 2.676% | 2.064% | +0.612 percentage points |
| Institution-specific countercyclical capital buffer (ICCB) | 0.176% | 0.189% | -0.013 percentage points |
| Capital conservation buffer (CCB) | 2.500% | 1.875% | +0.625 percentage points |
| Available CET1 capital after complying with the minimum capital requirements | 2,037 | 2,042 | -0.2% |
| **Leverage ratio** | | | |
| Tier 1 capital (T1) | 2,949 | 2,996 | -2% |
| Total leverage ratio exposure | 58,413 | 56,736 | 3% |
| Leverage Ratio | 5.0% | 5.3% | -0.3 percentage points |
| **Liquidity coverage ratio (LCR)** | | | |
| Liquidity buffer (twelve-month average values) | 5,926 | 5,939 | -0.2% |
| Total net cash outflows (twelve-month average values) | 2,358 | 2,317 | 2% |
| Liquidity coverage ratio (twelve-month average values) | 251% | 256% | -5 percentage points |

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**Note:**

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

With regard to the CRR/CRD regulations, there continues to be uncertainty regarding how some of the regulations are to be interpreted, and some of the related mandatory technical regulation standards are not yet available in their final version. Accordingly, we will continuously adapt our assumptions and models to reflect our understanding and our interpretation of the rules and also those of the sector. Accordingly, our CRR/CRD parameters may differ from our previous expectations. Our CRR/CRD parameters might also not be comparable with similar parameters designated by our competitors as their assumptions and assessments may differ from ours.

# Disclosure Report

## 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) in conjunction with the Amending Regulation (EU) 2019/876 (so-called CRR II) for pbb and its downstream affiliates (pbb Group) as of 30 June 2019. 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) 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. The revised disclosure requirements in accordance with Part 8 of the CRR Amending Regulation (CRR II) are only applicable starting 28 June 2021.

According to the currently valid 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 pbb Group meets the criterion of “the consolidated assets of the institution exceed € 30 billion” as per title V point 18 letter b of these guidelines, and it is therefore pursuant to point 26 b subject to a semi-annual disclosure, on the 30 June of any financial year (abridged) and 31 December of any financial year (complete). The pbb Group’s IFRS consolidated assets as of 30 June 2019 amounted to € 60.1 billion (as of 31 December 2018: € 57.8 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 credit risk
- Liquidity coverage ratio.

According to Article 13 (1) sentence 1 CRR, the Disclosure Report is based on the consolidated situation of the pbb Group. According to Article 13 CRR, pbb as the parent company of the Group is not required to provide additional disclosure at institution level. There are no major subsidiaries as defined in Article 13 (1) sentence 2 CRR.

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

### Disclosure information in accordance with part 8 of the CRR

This 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 the course of the year in accordance with Part 8 of the CRR (Basel II, Pillar 3), 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 (1) CRR:<br>Liquidity coverage ratio | Additional information on liquidity risk:<br>Interim Report 2019 of the pbb Group, Risk and Opportunity Report, page 25 (Liquidity and Funding Risk) | www.pfandbriefbank.com (under Investors / Financial Reports) |
| Article 437 CRR:<br>Own funds | Additional information concerning equity:<br>Interim report 2019 of the pbb Group, page 37 (Statement of Changes in Equity), page 41 et seq. (Note 2 Consistency, Equity), page 53 (Note 27 Equity) | www.pfandbriefbank.com (under Investors / Financial Reports) |
| Article 438 CRR:<br>Own funds requirements | Additional information concerning the adequacy of internal capital:<br>Interim Report 2019 of the pbb Group, Risk and Opportunity Report, page 26 et seq. (Internal Capital Adequacy Process, ICAAP) | www.pfandbriefbank.com (under Investors / Financial Reports) |
| Article 451 CRR:<br>Leverage ratio | - | - |
| Article 452 CRR:<br>Use of the IRB approach to credit risk | Additional information on the definition of credit risk types:<br>Disclosure Report 2018 of the pbb Group, section 5.1 "Management of credit risk (including counterparty credit risk)", page 71 et seq.<br><br>Additional information about the underlying IRBA coverage rating systems:<br>Disclosure Report 2018 of the pbb Group, chapter 5.5. “IRB Approach”, page 103 et seq. | www.pfandbriefbank.com<br>(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 € 6.0 billion as of the reporting date (31 December 2018: € 6.2 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. pbb is the direct or indirect main shareholder of the shareholdings included in the regulatory consolidation group.

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 2019 (31 December 2018). 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.

#### Table 1: Structure of own funds (shortened)

All figures in € million, unless otherwise stated

| No. | Capital instruments pbb Group | 30.06.2019 | 31.12.2018 |
|---|---|---|---|
| 6 | Common Equity Tier 1 (CET1) capital before regulatory adjustments | 2,775 | 2,825 |
| 28 | Total regulatory adjustments to Common equity Tier 1 (CET1) | -124 | -127 |
| **29** | **Common Equity Tier 1 (CET1) capital** | **2,651** | **2,698** |
| 36 | Additional Tier 1 (AT1) capital before regulatory adjustments | 298 | 298 |
| 43 | Total regulatory adjustments to Additional Tier 1 (AT1) capital | - | - |
| **44** | **Additional Tier 1 (AT1) capital** | **298** | **298** |
| **45** | **Tier 1 capital (T1 = CET1 + AT1)** | **2,949** | **2,996** |
| 51 | Tier 2 (T2) capital before regulatory adjustments | 634 | 643 |
| 57 | Total regulatory adjustments to Tier 2 (T2) capital | - | - |
| **58** | **Tier 2 (T2) capital** | **634** | **643** |
| **59** | **Total capital (TC = T1 + T2)** | **3,583** | **3,639** |
| 60 | Total risk weighted assets (RWA) | 13,649 | 14,587 |
| | **Capital ratios** | | |
| 61 | Common Tier 1 equity ratio (as a percentage of risk exposure amount) | 19.4% | 18.5% |
| 62 | Tier 1 capital ratio (as a percentage of risk exposure amount) | 21.6% | 20.5% |
| 63 | Total capital ratio (as a percentage of risk exposure amount) | 26.3% | 24.9% |

The basis of the own funds set out in the table is the COREP notification of own funds an own funds requirements of pbb Group as of 30 June 2019 (disregarding the consolidated profit from 1 January to 30 June 2019).

## 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 € 3,172 million (31 December 2018: € 3,257 million) adjusted by regulatory adjustments. The composition and change of the balance sheet equity according to IFRS is described in the interim report of the pbb Group as of 30 June 2019.

## Common equity tier 1 capital

As of 30 June 2019, 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 2019 (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 (excl. consolidated profit), retained earnings of € 787 million and accumulated other comprehensive income of € -29 million.

The consolidated profit of € 99 million from 1 January 2019 to 30 June 2019 is not included in CET1. Common equity tier 1 capital before regulatory adjustments totalled € 2,775 million.

Various items prescribed in the CRR totalling € 124 million are deducted from this amount. In addition to the adjustments for prudent valuation of assets measured at present value, these are mainly intangible assets (such as purchased software and software produced in-house), the deficit relating to the volume of adjustments (stage 1 to stage 3) compared with the expected loss, or deductible security deposits (such as the European bank levy to the BaFin as the national resolution authory as well as the payments made to the compensation scheme of German banks (statutory deposit protection) and the deposit protection fund of the private banks at the Federal Association of German Banks) as well as deferred tax assets which did not result from temporary differences after balance sheet netting with deferred tax liabilities).

Overall, the common equity tier 1 capital (CET1) as of 30 June 2019 after regulatory adjustments of pbb Group was € 2,651 million as of 30 June 2018 (31 December 2018: € 2,598 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.

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 liabilities balance sheet item "Additional equity instruments".

**Table 2: Additional tier 1 (AT1) capital – 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 (30.06.2019) - 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. The creditors do not have a right of termination.

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 primarily to pbb Group according to IFRS. In addition, the threshold is also applicable at the individual institution level according to HGB if pbb is no longer exempt from calculating the regulatory parameters at the individual institution level.

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 (30.6.19) - Main features of 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 (30.6.19) - Main features of 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 | 1 | 4,900 | 2020 |
| 4 | Deutsche Pfandbriefbank AG | 2000 | Bearer bond | 15 | variable | 2020 |
| 5 | Deutsche Pfandbriefbank AG | 2006 | Borrowers' note loan | 10 | 4,350 | 2021 |
| 6 | Deutsche Pfandbriefbank AG | 2006 | Registered bond | 10 | 4,570 | 2021 |
| 7 | Deutsche Pfandbriefbank AG | 2006 | Bearer bond | 7 | 4,560 | 2021 |
| 8 | Deutsche Pfandbriefbank AG | 2006 | Borrowers' note loan | 1 | 4,910 | 2021 |
| 9 | Deutsche Pfandbriefbank AG | 2002 | Borrowers' note loan | 4 | 6,550 | 2022 |
| 10 | Deutsche Pfandbriefbank AG | 2002 | Borrowers' note loan | 6 | 6,550 | 2022 |
| 11 | Deutsche Pfandbriefbank AG | 2002 | Bearer bond | 10 | 6,570 | 2022 |
| 12 | Deutsche Pfandbriefbank AG | 2003 | Bearer bond | 10 | 6,750 | 2023 |
| 13 | Deutsche Pfandbriefbank AG | 2008 | Bearer bond | 10 | 8,060 | 2023 |
| 14 | Deutsche Pfandbriefbank AG | 2003 | Borrowers' note loan | 5 | 6,330 | 2023 |
| 15 | Deutsche Pfandbriefbank AG | 2003 | Borrowers' note loan | 5 | 6,330 | 2023 |
| 16 | Deutsche Pfandbriefbank AG | 2005 | Borrowers' note loan | 10 | 4,650 | 2025 |
| 17 | Deutsche Pfandbriefbank AG | 2016 | Borrowers' note loan | 2 | 3,950 | 2026 |
| 18 | Deutsche Pfandbriefbank AG | 2006 | Borrowers' note loan | 2,5 | 4,530 | 2026 |
| 19 | Deutsche Pfandbriefbank AG | 2001 | Bearer bond | 7 | 6,550 | 2026 |
| 20 | Deutsche Pfandbriefbank AG | 2006 | Registered bond | 5 | 5,125 | 2026 |
| 21 | Deutsche Pfandbriefbank AG | 2016 | Borrowers' note loan | 5 | 3,880 | 2026 |
| 22 | Deutsche Pfandbriefbank AG | 2006 | Borrowers' note loan | 5 | 5,040 | 2026 |
| 23 | Deutsche Pfandbriefbank AG | 2016 | Bearer bond | 35 | 3,250 | 2026 |

| No. [1] | Issuer | Year of issue | Type | Nominal amount in € million | Interest rate in % | Maturity |
|---|---|---|---|---|---|---|
| 24 | Deutsche Pfandbriefbank AG | 2017 | Bearer bond | 150 | 4,600 | 2027 |
| 25 | Deutsche Pfandbriefbank AG | 2017 | Bearer bond | 60 | 3,375 | 2027 |
| 26 | Deutsche Pfandbriefbank AG | 2017 | Bearer bond | 300 | 2,875 | 2027 |
| 27 | Deutsche Pfandbriefbank AG | 2016 | Bearer bond | 5 | 4,120 | 2031 |
| 28 | Deutsche Pfandbriefbank AG | 2017 | Registered bond | 7,5 | 4,550 | 2032 |
| **Total** | | | | **688** | | |

1) The sequential numbering corresponds to the consecutive numbering of the capital instruments in the appendix "Disclosure Report (30.06.2019) - 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 amortisations in accordance with Article 64 CRR, tier 2 capital before regulatory adjustments amounted to a total of € 634 million as of 30 June 2019 (31 December 2018: € 643 million).

### Total equity

The own funds of the pbb Group totaling € 3,583 million (31 December 2018: € 3,639 million) consist of common equity tier 1 (CET1) capital of € 2,651 million, additional equity tier 1 (AT1) capital of € 298 million and tier 2 (T2) capital of € 634 million.

The factors for the slight decline of € 56 million in the regulatory own funds of pbb Group compared with the end 2018 are repayments of subordinate liabilities which fell due in the first half of 2019 as well as declines in the recognition of subordinate bonds (T2 capital) due to daily amortisations in accordance with Article 64 CRR.

In addition, in April 2019, there was a coupon payment of € 18 million in relation to the additional tier 1 (AT1) capital which reduced the retained earnings. In June 2019, the shareholders received dividends totalling € 134 million (€ 1.00 per eligible share).

### Optional IFRS 9 transitional regulations

Since 1 January 2018, the pbb Group has not been applying the optional transitional regulations in accordance with Article 473 (2) letter a CRR for weakening the impact of the introduction of IFRS 9. 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.

## Capital ratios

The basis of the regulatory capital backing and the capital ratios is formed by the regulations of the Regulation (EU) No. 575/2013 (Capital Requirements Regulation, CRR) in conjunction with the Amending Regulation (EU) 2019/876 (so-called CRR II) and the directive 2013/36/EU (Capital Requirements Directive, CRD IV) in conjunction with the Amending Regulation (EU) 2019/878 (so-called CRD V).

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 2019. As the ultimate parent company in the group, pbb is responsible for compliance with the capital ratios on a combined basis.

The pbb Group has a sound capital base. The provisions regarding the regulatory capital ratios were complied with at all times in the first half of the financial year 2019.

### 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. These requirements were also complied with at all times by the pbb Group during the first half of 2019.

The aim of the supervisory review and monitoring process is to ensure a holistic analysis of the institutions supervised by the ECB. This comprises the assessment of the business model, risk and corporate governance, the risk situation as well as capital and liquidity backing. pbb Group was notified of the new minimum capital requirements for 2019 towards the end of 2018 (draft) and also in February 2019 (final resolution) within the framework of the regular annual definition process.

#### Minimum CET1 ratio

According to this, the pbb Group has - since 1 March 2019 - maintained a minimum CET1 ratio of 9.5 % (without the country-specific and therefore portfolio-specific anticyclical capital buffer of 0.176 % as of 30 June 2019). This requirement is based on the final status of the Basel III requirements (excluding transitional regulations) and consists of a pillar 1 minimum capital requirement (4.5 %), a pillar 2 requirement (P2R: 2.5 %) and the capital conservation buffer (CCB: 2.5 %). The CET1 minimum capital requirement that applies for 2019 also represents the threshold below which the calculation of a maximum distributable amount (MDA) is mandatory. This generally limits distributions to the CET1 capital, new performance-based remuneration, and interest payments on additional tier 1 capital.

#### Total capital requirement

Additionally, the pbb Group has - since 1 March 2019 - to maintain a total capital requirement of 13.0 % (without the country-specific and therefore portfolio-specific countercyclical capital buffer of 0.176 % as of 30 June 2019). This requirement is based on the final status of the Basel III requirements (excl. transitional regulations) and consists of a pillar 1 minimum own-funds requirement (8.0 %), a pillar 2 requirement (2.5 %) and the capital conservation buffer (2.5 %).

# 3 Own funds requirements

As the ultimate parent company of the Group, pbb is responsible for compliance with the own funds requirements on a combined basis (regulatory consolidation group).

## Methods for determining the own funds requirement

In order to determine 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% |
| 31 December 2018 | 96% | 98% |
| 30 June 2019 | 97% | 98% |

The advanced IRB approach in the credit portfolio of pbb Group covers 97 % of the exposure at default (EAD) and 98 % of risk weighted assets (RWA) as of 30 June 2019. The remaining percentage points which are subject to the standard approach in accordance with the CRR rules relate for instance to credit risk exposures with public-sector borrowers (amounts due from German municipalities), receivables due from the central counterparty Eurex Clearing as well as 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 exposures 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 2019 amounted to 8 % of the risk-weighted receivables.

The total own funds requirement is 10,676 % (31 December 2018: 10,064 %). The increase of 0.612 percentage points compared with 31 December 2018 is 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 2.5 % of the total risk amount in 2019 (2018: 1.875 %). This is opposed by 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 2019 amounts to 0.176 % of the total risk amount (31 December 2018: 0.189 %).

The risk-weighted assets (RWA) of the pbb Group amounted to € 13,649 million as of 30 June 2019 (31 December 2018: € 14,587 million), and had thus declined by € 838 million 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 |
|---|---|---|---|---|
| | | 30.06.2019 | 31.12.2018 | 30.06.2019 |
| **1** | **Credit risk (without counterparty credit risk)** | **12,046** | **12,963** | **964** |
| 2 | thereof: standardised approach (CRSA) | 491 | 461 | 39 |
| 2a | Exposures to central governments or central banks | - | - | - |
| 2b | Exposures to regional governments or local authorities | - | - | - |
| 2c | Exposures to other public sector entities | - | - | - |
| 2d | Exposures to multilateral development banks | - | - | - |
| 2e | Exposures to international organisations | - | - | - |
| 2f | Exposures to institutions | 1 | - | 0 |
| 2g | Exposures to corporates | 260 | 217 | 21 |
| 2h | Retail exposures | 0.2 | 0 | 0.01 |
| 2i | Exposures secured by mortgages on immovable property | 34 | 34 | 3 |
| 2j | Exposures in default | 3 | 3 | 0.2 |
| 2k | Exposures associated with particularly high risk | - | - | - |
| 2l | Exposures in the form of covered bonds | - | - | - |

All figures in € million

| | | Risk-weighted assets (RWA) | | Minimum capital requirement |
|---|---|---|---|---|
| | | 30.06.2019 | 31.12.2018 | 30.06.2019 |
| 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 | - | - | - |
| 2p | Other items [1] | 189 | 204 | 15 |
| 3 | thereof: foundation IRB (FIRB) approach | - | - | - |
| 4 | thereof: advanced IRB (AIRB) approach | 11,554 | 12,503 | 924 |
| 4a | Exposures to central governments and central banks | 2,462 | 2,602 | 197 |
| 4b | Exposures to institutions | 2,283 | 2,513 | 183 |
| 4c | Exposures to corporates | 6,771 | 7,370 | 542 |
| 4ca | thereof: small and medium-sized enterprises (SME) | 300 | 288 | 24 |
| 4cb | thereof: specialized lending exposures | 6,038 | 6,532 | 483 |
| 4cc | thereof: other | 433 | 550 | 35 |
| 4g | Retail exposures | - | - | - |
| 4h | Other non credit-obligation assets | 38 | 18 | 3 |
| 5 | thereof: equity IRB exposures under the simple risk-weighted approach or the internal model approach (IMA) | 0.1 | 0.08 | 0.01 |
| 5a | thereof: internal model approach (IMA) | - | - | - |
| 5b | thereof: simple risk-weighting approach | 0.1 | 0.08 | 0.01 |
| 5ba | thereof: exchange-traded equity investments | - | - | - |
| 5bb | thereof: unlisted, but part of a sufficiently diversified portfolio | - | - | - |
| 5bc | thereof: other investments | 0.1 | 0.08 | 0.01 |
| **6** | **Counterparty credit risk** [2] | **561** | **524** | **45** |
| 7 | thereof: mark-to-market method | 308 | 262 | 25 |
| 8 | thereof: original exposure method | - | - | - |
| 9 | thereof: standardised approach | - | - | - |
| 10 | thereof: internal model method (IMM) | - | - | - |
| 11 | thereof: risk exposure amount for contributions to the default fund of a central counterparty (CCP) | 1 | 1 | 0.1 |
| 12 | thereof: CVA risk [3] | 253 | 262 | 20 |
| 12a | thereof: advanced method | - | - | - |
| 12b | thereof: standardised method | 253 | 262 | 20 |
| 12c | thereof: alternative method, based on the original exposure method | - | - | - |
| **13** | **Settlement risk** | **0** | **0** | **0** |
| 13a | thereof: in the banking book | - | - | - |
| 13b | thereof: in the trading book | - | - | - |
| **14** | **Securitisation exposures in the banking book (after the cap)** | **0** | **0** | **0** |
| 15 | thereof: IRB approach | - | - | - |
| 16 | thereof: IRB supervisory formular approach (SFA) | - | - | - |
| 17 | thereof: internal assessment approach (IAA) | - | - | - |
| 18 | thereof: standardised approach | - | - | - |
| **19** | **Market risk** | **173** | **370** | **18** |
| 20 | thereof: standardised approach | 173 | 370 | 18 |
| 20a | thereof: position risk | - | - | - |
| 20b | thereof: foreign-exchange risk | 173 | 370 | 18 |
| 20c | thereof: commodity risk | - | - | - |
| 21 | thereof: internal model approach (IMA) | - | - | - |
| **22** | **Large exposures in the trading book** [4] | **0** | **0** | **0** |

All figures in € million

| | | Risk-weighted assets (RWA) | | Minimum capital requirement |
|---|---|---|---|---|
| | | 30.06.2019 | 31.12.2018 | 30.06.2019 |
| **23** | **Operational risk** | **870** | **870** | **70** |
| 24 | thereof: basic indicator approach | - | - | - |
| 25 | thereof: standardised approach | 870 | 870 | 70 |
| 26 | thereof: advanced measurement approach (AMA) | - | - | - |
| 27 | Amounts below the thresholds for deduction (subject to 250% risk weight) | 189 | 204 | - |
| 28 | Floor adjustment | - | - | - |
| **29** | **Total** | **13,649** | **14,587** | **1,092** |

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 an 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 reduction of the risk-weighted receivables (by a total of € 938 million) is mainly attributable to changes in the loss given default (LGD) for determining the risk weights in the advanced IRB approach. In addition, repayments and redemptions (credit risks) as well as the decline in the foreign currency exposures (market risk) have also had the effect of reducing the RWA. This was opposed by the volume of new business carried out in the first half of 2019 (incl. prolongations with durations of more than one year) in the amount of € 4.4 billion in commercial Real Estate Finance (REF) and the increase in the volume of derivatives (counterparty credit risk).

The minimum capital requirement for the risk-weighted assets of pbb Group totalled € 1,092 million as of the reporting date (31 December 2018: € 1,167 million). In line with the business model of the pbb Group, which focusses on commercial real estate financing and also public investment financing, credit risks account for 92 % of the own funds requirement (incl. counterparty credit risks and CVA risks), market risks account for 1 % and operational risks account for 7 %.

The total own funds requirement amounted to € 1,457 million (31 December 2018: € 1,468 million. The slight reduction of € 11 million compared with the end of the previous year is mainly attributable to the decline in RWA; it is also attributable to the slight reduction in the institution-specific countercyclical capital buffer (ICCB) for pbb Group to 0.176 % of the total risk amount (31 December 2018: 0.189 %). This was opposed by the increase in the capital conservation buffer (CCB) to 2.5 % of the total risk amount in 2019 (2018: 1.875 %).

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 € 2,037 million (31 December 2018: € 2,042 million) of common equity tier 1 (CET1) capital is available to the pbb Group for this purpose.

### Surplus own resources

As of 30 June 2019, the surplus own resources (own funds less own funds requirement incl. capital buffer) amounted to € 2,126 million for the pbb Group (31 December 2018: € 2,171 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 been not any binding maximum applicable for the leverage ratio in the European Union. However, with the Amending Regulation (EU) 2019/876 (so-called CRR II), Article 92 (1) CRR was modified in such a way that, starting 28 June 2021, institutions have a mandatory requirement to comply with a leverage ratio of min. 3 % at all times.

As was the case at the end of the previous year, the leverage ratio for the pbb Group amounted to 5.0 % as of 30 June 2019, 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 | | 30.06.2019 | 31.12.2018 |
|---|---|---|---|
| 20 | Tier 1 capital | 2,949 | 2,996 |
| 21 | Total leverage ratio exposures | 58,413 | 56,736 |
| 22 | Leverage ratio | 5.0% | 5.3% |

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 2018, the leverage ratio for the pbb Group as at 30 June 2019 declined slightly to 5.0 % (31 December 2018: 5.3 %). The decline is attributable to the increase of € 1,677 million in the total exposure parameter and a slight decline of € 47 million in tier 1 capital. The tier 1 capital amounted to € 2,949 million as of 30 June 2019 (31 December 2018: € 2,996 million), and the total exposure parameter amounted to € 58,413 million (31 December 2018: € 56,735 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 credit risk exposures (including counterparty credit 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 an unexpected default or decline in the market value of a receivable (loan or bond) or a derivative (alternatively of an entire portfolio of receivables/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, realisation risk of defaulted positions, transfer and conversion risk, tenant risk, settlement risk, extension risk as well as concentration risk, which are defined as follows in pbb Group's risk strategy. The individual types of counterparty risk are described in pbb Group's Disclosure Report 2018 on page 71 et seq.

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 standard approach (CRSA). Some clearly defined sub-portfolios are not covered by the IRB approach and are subject to the standard approach instead. These are as follows:

- Receivables due from German municipalities in accordance with Article 150 (1) letter d CRR
- Credit risk exposures which belong to an area which is being phased out in accordance with Article 150 (1) 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 credit risk exposures which are not subject to any rating procedure according to the IRB approach approved by the banking regulator.

As of 30 June 2019, the advanced IRB approach in the loan portfolio of pbb Group covers 97 % 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 2018 on page 103 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 classes the 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 above-mentioned rating systems: 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, in accordance with Article 452 letter e CRR in conjunction with EU CCR4 of the EBA/GL/2016/11, the table shows the receivables and major risk parameters of the positions in the IRB approach for which the receivables value is calculated in accordance with part 3, title II, chapter 6 “Counterparty credit risk“ of the CRR. These regulations for calculating the exposure value for the counterparty credit risk are applied by the pbb Group for derivative transactions, using the mark-to-market 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 | 16,165 | 44 | 100% | 18,847 | 0.00% | 84 | 20% | 4 | 333 | 2% | 0.3 | — |
| 3 | 0,15 to < 0,25 | 1,633 | - | - | 1,633 | 0.20% | 2 | 65% | 5 | 1,669 | 102% | 2 | — |
| 4 | 0,25 to < 0,50 | 375 | - | - | 375 | 0.45% | 3 | 57% | 4 | 408 | 109% | 1 | — |
| 5 | 0,50 to < 0,75 | - | - | - | - | - | - | - | - | - | - | - | — |
| 6 | 0,75 to < 2,50 | 28 | - | - | 28 | 2.00% | 1 | 48% | 5 | 47 | 165% | 0.3 | — |
| 7 | 2,50 to < 10,00 | 48 | 0 | 100% | 2 | 5.00% | 1 | 11% | 5 | 1 | 47% | 0.01 | — |
| 8 | 10,00 to < 100,00 | 3 | - | - | 3 | 10.00% | 1 | 45% | 1 | 6 | 186% | 0.1 | — |
| 9 | 100,00 (Default) | - | - | - | - | - | - | - | - | - | - | - | — |
| 10 | Subtotal | 18,254 | 44 | 100% | 20,890 | 0.03% | 92 | 24% | 4 | 2,462 | 12% | 4 | 5 |
| 11 | Institutions | | | | | | | | | | | | |
| 12 | 0,00 to < 0,15 | 2 | 445 | 100% | 3,139 | 0.03% | 107 | 42% | 5 | 810 | 26% | 0.4 | — |
| 13 | 0,15 to < 0,25 | 1,079 | - | - | 1,067 | 0.20% | 33 | 40% | 4 | 590 | 55% | 1 | — |
| 14 | 0,25 to < 0,50 | 1,490 | - | - | 687 | 0.36% | 8 | 13% | 3 | 177 | 26% | 0 | — |
| 15 | 0,50 to < 0,75 | - | - | - | - | - | - | - | - | - | - | - | — |
| 16 | 0,75 to < 2,50 | 250 | - | - | 250 | 1.50% | 1 | 12% | 3 | 103 | 41% | 0.5 | — |
| 17 | 2,50 to < 10,00 | - | - | - | - | - | - | - | - | - | - | - | — |
| 18 | 10,00 to < 100,00 | - | - | - | 160 | 21.50% | - | 60% | 5 | 604 | 378% | 21 | — |
| 19 | 100,00 (Default) | - | - | - | - | - | - | - | - | - | - | - | — |
| 20 | Subtotal | 5,893 | 445 | 100% | 5,303 | 0.83% | 149 | 37% | 4 | 2,283 | 43% | 23 | 2 |

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 |
| 21 | Corporates | | | | | | | | | | | | |
| 22 | 0,00 to < 0,15 | 1,747 | - | - | 1,100 | 0.09% | 83 | 8% | 4 | 53 | 5% | 0.1 | — |
| 23 | 0,15 to < 0,25 | 3,005 | 93 | 74% | 2,902 | 0.20% | 117 | 7% | 4 | 245 | 8% | 0.4 | — |
| 24 | 0,25 to < 0,50 | 8,580 | 517 | 76% | 8,754 | 0.40% | 299 | 9% | 3 | 1,265 | 14% | 3 | — |
| 25 | 0,50 to < 0,75 | - | - | - | - | - | - | - | - | - | - | - | — |
| 26 | 0,75 to < 2,50 | 10,732 | 920 | 75% | 11,256 | 1.32% | 286 | 11% | 3 | 2,822 | 25% | 16 | — |
| 27 | 2,50 to < 10,00 | 4,380 | 2,192 | 84% | 5,723 | 3.72% | 155 | 11% | 3 | 2,043 | 36% | 25 | — |
| 28 | 10,00 to < 100,00 | 710 | 48 | 72% | 443 | 10.70% | 20 | 13% | 2 | 216 | 49% | 6 | — |
| 29 | 100,00 (Default) | 201 | 0.4 | 100% | 201 | 100% | 14 | 32% | 1 | 126 | 62.5% | 54 | — |
| 30 | Subtotal | 29,355 | 3,769 | 81% | 30,380 | 2.14% | 974 | 10% | 3 | 6,771 | 22% | 105 | 86 |
| 31 | thereof: specialised lending | | | | | | | | | | | | |
| 32 | 0,00 to < 0,15 | 183 | - | - | 183 | 0.09% | 11 | 7% | 2 | 6 | 4% | 0.01 | — |
| 33 | 0,15 to < 0,25 | 1,857 | 18 | 50% | 1,866 | 0.20% | 43 | 8% | 4 | 176 | 9% | 0.3 | — |
| 34 | 0,25 to < 0,50 | 7,142 | 311 | 63% | 7,301 | 0.39% | 152 | 9% | 3 | 1,036 | 14% | 3 | — |
| 35 | 0,50 to < 0,75 | - | - | - | - | - | - | - | - | - | - | - | — |
| 36 | 0,75 to < 2,50 | 9,888 | 766 | 68% | 10,355 | 1.34% | 182 | 11% | 3 | 2,635 | 25% | 15 | — |
| 37 | 2,50 to < 10,00 | 3,791 | 2,026 | 82% | 5,292 | 3.75% | 101 | 11% | 3 | 1,897 | 36% | 23 | — |
| 38 | 10,00 to < 100,00 | 369 | 31 | 72% | 389 | 10.78% | 5 | 12% | 2 | 168 | 43% | 5 | — |
| 39 | 100,00 (Default) | 190 | - | - | 190 | 100% | 6 | 32% | 1 | 119 | 62% | 51 | — |
| 40 | Subtotal | 23,421 | 3,152 | 78% | 25,577 | 2.35% | 500 | 10% | 3 | 6,038 | 24% | 98 | 50 |
| 41 | thereof: SMEs | | | | | | | | | | | | |
| 42 | 0,00 to < 0,15 | 70 | - | - | 52 | 0.08% | 29 | 3% | 5 | 1 | 3% | 0.002 | — |
| 43 | 0,15 to < 0,25 | 170 | - | - | 170 | 0.20% | 49 | 4% | 5 | 9 | 5% | 0.01 | — |
| 44 | 0,25 to < 0,50 | 989 | 185 | 88% | 1,134 | 0.41% | 88 | 9% | 5 | 189 | 17% | 0.4 | — |
| 45 | 0,50 to < 0,75 | - | - | - | - | - | - | - | - | - | - | - | — |
| 46 | 0,75 to < 2,50 | 401 | 46 | 90% | 440 | 1.09% | 57 | 4% | 4 | 38 | 9% | 0.2 | — |
| 47 | 2,50 to < 10,00 | 52 | 20 | 100% | 72 | 2.71% | 19 | 9% | 5 | 19 | 27% | 0.2 | — |
| 48 | 10,00 to < 100,00 | 48 | - | - | 48 | 10.00% | 1 | 22% | 3 | 38 | 79% | 1 | — |
| 49 | 100,00 (Default) | 9 | - | - | 9 | 100% | 4 | 28% | 5 | 5 | 62% | 2 | — |
| 50 | Subtotal | 1,739 | 251 | 90% | 1,925 | 1.31% | 247 | 8% | 5 | 300 | 16% | 4 | 3 |

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 |
| 51 | thereof: purchased receivables | | | | | | | | | | | | |
| 52 | 0,00 to < 0,15 | - | - | - | - | - | - | - | - | - | - | - | — |
| 53 | 0,15 to < 0,25 | - | - | - | - | - | - | - | - | - | - | - | — |
| 54 | 0,25 to < 0,50 | - | - | - | - | - | - | - | - | - | - | - | — |
| 55 | 0,50 to < 0,75 | - | - | - | - | - | - | - | - | - | - | - | — |
| 56 | 0,75 to < 2,50 | - | - | - | - | - | - | - | - | - | - | - | — |
| 57 | 2,50 to < 10,00 | - | - | - | - | - | - | - | - | - | - | - | — |
| 58 | 10,00 to < 100,00 | - | - | - | - | - | - | - | - | - | - | - | — |
| 59 | 100,00 (Default) | - | - | - | - | - | - | - | - | - | - | - | — |
| 60 | Subtotal | - | - | - | - | - | - | - | - | - | - | - | - |
| 61 | Retail | - | - | - | - | - | - | - | - | - | - | - | - |
| 62 | Equity | 0.02 | - | - | 0.02 | - | 3 | - | - | 0.1 | 370% | - | — |
| 63 | thereof: internal model approach (IMA) | - | - | - | - | - | - | - | - | - | - | - | — |
| 64 | thereof: PD-/LGD approach | - | - | - | - | - | - | - | - | - | - | - | — |
| 65 | thereof: simple risk-weighting approach | 0.02 | - | - | 0.02 | - | 3 | - | - | 0.1 | 370% | - | — |
| 66 | Other non credit-obligation assets | 38 | - | - | 38 | - | 1 | - | - | 38 | 1 | - | - |
| **67** | **Total IRB approach** | **53,540** | **4,258** | **84%** | **56,610** | **1.24%** | **1,219** | **18%** | **4** | **11,554** | **20%** | **131** | **92** |

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 before 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 IRB 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 | 0.04% | 2 | 108% | 5 | 2 | 82% |
| 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 | 0.04% | 2 | 108% | 5 | 2 | 82% |
| 11 | Institutions | | | | | | | |
| 12 | 0,00 to < 0,15 | 67 | 0.10% | 6 | 15% | 5 | 15 | 23% |
| 13 | 0,15 to < 0,25 | 130 | 0.20% | 17 | 17% | 5 | 45 | 35% |
| 14 | 0,25 to < 0,50 | 75 | 0.31% | 9 | 17% | 5 | 31 | 41% |
| 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 | 271 | 0.21% | 32 | 17% | 5 | 91 | 33% |
| 21 | Corporates | | | | | | | |
| 22 | 0,00 to < 0,15 | 27 | 0.01% | 3 | 19% | 5 | 2 | 6% |
| 23 | 0,15 to < 0,25 | 26 | 0.20% | 18 | 56% | 4 | 19 | 73% |
| 24 | 0,25 to < 0,50 | 62 | 0.41% | 56 | 56% | 4 | 55 | 90% |
| 25 | 0,50 to < 0,75 | - | - | - | - | - | - | - |
| 26 | 0,75 to < 2,50 | 64 | 1.33% | 62 | 56% | 4 | 95 | 149% |
| 27 | 2,50 to < 10,00 | 12 | 3.22% | 18 | 56% | 4 | 22 | 181% |
| 28 | 10,00 to < 100,00 | 10 | 10.00% | 1 | 56% | 4 | 20 | 205% |
| 29 | 100,00 (Default) | 0.3 | 100% | 1 | 56% | 1 | 0.2 | 62% |
| 30 | Subtotal | 200 | 1.43% | 159 | 51% | 4 | 213 | 106% |
| 31 | thereof: specialised lending | | | | | | | |
| 32 | 0,00 to < 0,15 | 0 | 0.10% | 1 | 56% | 1 | 0 | 25% |
| 33 | 0,15 to < 0,25 | 16 | 0.20% | 16 | 56% | 4 | 11 | 72% |
| 34 | 0,25 to < 0,50 | 37 | 0.38% | 49 | 56% | 4 | 34 | 92% |
| 35 | 0,50 to < 0,75 | - | - | - | - | - | - | - |
| 36 | 0,75 to < 2,50 | 61 | 1.35% | 61 | 56% | 4 | 91 | 149% |
| 37 | 2,50 to < 10,00 | 9 | 3.30% | 16 | 56% | 3 | 16 | 179% |
| 38 | 10,00 to < 100,00 | - | - | - | - | - | - | - |
| 39 | 100,00 (Default) | 0.3 | 100.00% | 1 | 56% | 1 | 0.2 | 62% |
| 40 | Subtotal | 124 | 1.31% | 144 | 56% | 4 | 153 | 124% |
| 41 | thereof: SMEs | | | | | | | |
| 42 | 0,00 to < 0,15 | - | - | - | - | - | - | - |
| 43 | 0,15 to < 0,25 | - | - | - | - | - | - | - |
| 44 | 0,25 to < 0,50 | 18 | 0.45% | 2 | 56% | 4 | 16 | 89% |
| 45 | 0,50 to < 0,75 | - | - | - | - | - | - | - |
| 46 | 0,75 to < 2,50 | - | - | - | - | - | - | - |
| 47 | 2,50 to < 10,00 | 3 | 3.00% | 2 | 56% | 5 | 6 | 185% |
| 48 | 10,00 to < 100,00 | 10 | 10.00% | 1 | 56% | 4 | 20 | 205% |
| 49 | 100,00 (Default) | - | - | - | - | - | - | - |
| 50 | Subtotal | 31 | 3.76% | 5 | 56% | 4 | 42 | 136% |
| 51 | Retail | - | - | - | - | - | - | - |

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 |
| 52 | Equity | - | - | - | - | - | - | - |
| 53 | thereof: internal model approach (IMA) | - | - | - | - | - | - | - |
| 54 | thereof: PD-/LGD approach | - | - | - | - | - | - | - |
| 55 | thereof: simple risk-weighting approach | - | - | - | - | - | - | - |
| **56** | **Total** | **474** | **0.72%** | **193** | **32%** | **4** | **306** | **64%** |

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 positions (excl. counterparty credit risk positions), the EAD as of 30 June 2019 amounted to € 56,610 million (31 December 2018: € 55,190 million), and the RWA amounted to € 11,554 million (31 December 2018: € 12,503 million).

The average RWA density for the IRBA loan receivables is 20 % across all IRBA exposure classes (31 December 2018: 23 %). 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 18 % on average for the loan receivables (excluding counterparty credit risk exposures) (31 December 2018: 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 1.24 % (31 December 2018: 1.31 %).

The unutilised IRBA loan commitments amount to a total of € 4,258 million (31 December 2018: € 4,489 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 84 % (31 December 2018: 86 %).

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 for complementing the (EU) Directive No. 575/2013 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 was 302 % as of 30 June 2019 (31 December 2018: 212 %).

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 2019. 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)**<br>pbb Group | **Total unweighted value** (12-month-average) [1] | | | | **Total weighted value** (12-month-average) [1] | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Quarter ending on: | 30.06.2019 | 31.03.2019 | 31.12.2018 | 30.09.2018 | 30.06.2019 | 31.03.2019 | 31.12.2018 | 30.09.2018 |
| | 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 | | | | | 5,926 | 5,939 | 5,939 | 6,191 |
| 22 | Total net cash outflows | | | | | 2,358 | 2,319 | 2,317 | 2,556 |
| 23 | Liquidity Coverage Ratio (in %) | | | | | 251% | 256% | 256% | 242% |

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. Liquidity management is carried out exclusively by pbb.

# 7 Outlook

### CRR Amending Regulation

On 7 June 2019, the EU Gazette published the so-called risk reduction package (consisting of CRR II, CRD V, BRRD II and SRMR II), which also includes a revision of the CRR/CRD IV reform package. The Amending Regulation (EU) 2019/876 (so-called CRR II), which also governs the main disclosure requirements (Part 8 “Disclosure by Institutions”), came into force on 27 June 2019, and, with some exceptions for transitional periods specified in Article 3 of the CRR II, is not applicable until 28 June 2021.

In order to define EU-wide disclosure formats (tables) and corresponding instructions for the necessary disclosures, and in accordance with Article 434a CRR II, the European Banking Authority (EBA) was engaged to draw up a corresponding implementing technical standard by 28 June 2020.

The new regulations for disclosure as well as the uniform disclosure formats still to be drawn up by the EBA are thus to be applicable for the first time in the disclosure report as of 30 June 2021.

### Guidelines for disclosure of non-performing and foreborne exposures

The guidelines EBA/GL/2018/10 for the disclosure of non-performing and foreborne exposures, which will be applicable starting 31 December 2019, will be implemented by pbb in its disclosure report as of 31 December 2019. The main objective of these guidelines is to provide market participants with further information about the credit quality of the institutions, regarding the main features of their non-performing and foreborne exposures.

### Securitisation transaction Estate UK-3

As described in the disclosure report 2018 (chapter 5.8 “Securitisations“), the portfolio of pbb Group as of 31 December 2018 still had one of the group’s own securitization transactions (as originator) from 2007, namely the synthetic securitization transaction Estate UK-3. The risk-weighted receivable amounts and the own funds requirement amounted to € 0.

Within the framework of this synthetic securitisation transaction Estate UK-3 (UK-3), a predecessor institution of pbb - Hypo Real Estate Bank International AG, which was absorbed by way of merger in pbb – issued credit-linked notes (CLN) in 2007 in order to back UK real estate loans. All of these CLNs (including the subordinate tranches) have been sold to investors). One loan has subsequently defaulted. pbb intended to allocate a resultant loss of GBP 113.8 million to the credit linked notes. Deloitte GmbH Wirtschaftsprüfungsgesellschaft, which within the framework of UK-3 acts as trustee for safeguarding the interests of the investors, expressed doubts regarding the legitimacy of the loss allocation. In June 2017, the trustee therefore appointed an independent expert to establish whether the conditions for loss allocation had been satisfied. The expert notified his findings on 28 June 2019. He considers that the allocation of a default-related loss of GBP 113.8 million is fully legitimate, and thus confirmed the opinion of pbb. The loss allocation has resulted in a corresponding reduction of the repayment claim under the credit linked notes.

pbb will allocate the loss to the credit linked notes as of the next possible date, namely 20 September 2019. The loss allocation will result in a complete default of the credit linked notes of classes A2, B, C, D and E, and will reduce the nominal amount of the class A1+ of GBP 400,000 by approximately 0.1 %.

## List of figures



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**Deutsche Pfandbriefbank AG**

Parkring 28
85748 Garching
Germany
T +49 (0)89 2880-0
F +49 (0)89 2880-10319
info@pfandbriefbank.com
www.pfandbriefbank.com